



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 124902

TO: Sarvamangala Devi

Location: REM/3C18

Art Unit: 1645

June 23, 2004

Case Serial Number: 10/054536

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Phone: (571) 272-2529

sheppard@uspto.gov

STIC-Biotech/ChemLib

124902

From: Devi, Sarvamangala  
Sent: Thursday, June 17, 2004 11:04 AM  
To: STIC-Biotech/ChemLib  
Subject: 10/054,536

Good morning:

1) Please perform a sequence and an interference search for SEQ ID NO: 2 in application SN 10/054,536. Please run the sequence also in amino acid sequence databases.

2) Please include a search for inventor's name: Nobutaka Wakamiya

Thanx.

S. DEVI, Ph.D.  
AU 1645  
Rems - 3C18

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH:  
NA Sequences: \_\_\_\_\_  
AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

=> fil hcaplus  
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FILE COVERS 1907 - 23 Jun 2004 VOL 140 ISS 26  
 FILE LAST UPDATED: 22 Jun 2004 (20040622/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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 L1 53 SEA FILE=HCAPLUS ABB=ON PLU=ON "WAKAMIYA N"/AU OR "WAKAMIYA NABUTAKA"/AU OR ("WAKAMIYA NOBUTAKA"/AU OR "WAKAMIYA NOBUTAKA"/IN)

=>  
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=> d ibib abs 1-53

L1 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:336060 HCAPLUS  
 TITLE: Collectin family as a host defense lectin  
 AUTHOR(S): **Wakamiya, Nobutaka**; Yoshida, Itsuro;  
 Ogasawara, Masahiro; Fukuzawa, Jun; Ohtani, Katsuki;  
 Koyama, Satoshi  
 CORPORATE SOURCE: Department of Microbiology and Immunochemistry,  
 Asahikawa Medical College, Asahikawa, 078-8510, Japan  
 SOURCE: Hokkaido Igaku Zasshi (2004), 79(1), 3-7  
 CODEN: HOIZAK; ISSN: 0367-6102  
 PUBLISHER: Hokkaido Igakkai  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Unavailable

L1 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:20517 HCAPLUS  
 DOCUMENT NUMBER: 140:53386  
 TITLE: Anti-HIV agent  
 INVENTOR(S): **Wakamiya, Nobutaka**; Ohtani, Katsuki;  
 Sakamoto, Takashi; Keshi, Hiroyuki; Kishi, Yuichiro  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 44 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002511	A1	20040108	WO 2003-JP8259	20030630
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU</p> <p>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p>				

PRIORITY APPLN. INFO.: JP 2002-189534 A 20020628

AB It is intended to disclose an anti-HIV agent which contains as the active ingredient a mannose-binding protein (MBP) and efficaciously contributes to the treatment of patients infected with human immunodeficiency virus (HIV) and inhibits the progress of the disease. It is also intended to disclose a method of evaluating an anti-HIV activity exerted by the MBP which involves the step of culturing HIV-infected cells in the presence of the MBP.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:687838 HCAPLUS

DOCUMENT NUMBER: 139:349046

TITLE: Roles of calcineurin and calcium/calmodulin-dependent protein kinase II in pressure overload-induced cardiac hypertrophy

AUTHOR(S): Saito, Tetsuya; Fukuzawa, Jun; Osaki, Junzo; Sakuragi, Hitoshi; Yao, Naoyuki; Haneda, Takashi; Fujino, Takayuki; Wakamiya, Nobutaka; Kikuchi, Kenjiro; Hasebe, Naoyuki

CORPORATE SOURCE: First Department of Medicine, Asahikawa Medical College, Asahikawa, 078 8510, Japan

SOURCE: Journal of Molecular and Cellular Cardiology (2003), 35(9), 1153-1160  
 CODEN: JMCDDY; ISSN: 0022-2828

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Calcineurin and calcium/calmodulin-dependent protein kinase (CaMK) II have been suggested to be the signaling mol. in cardiac hypertrophy. It was not known, however, whether these mechanisms are involved in cardiac hypertrophy induced by pressure overload without the influences of blood-derived humoral factors, such as angiotensin II. To elucidate the roles of calcineurin and CaMK II in this situation, we examined the effects of calcineurin and CaMK II inhibitors on pressure overload-induced expression of c-fos, an immediate-early gene, and protein synthesis using heart perfusion model. The hearts isolated from Sprague-Dawley rats were perfused according to the Langendorff technique, and then subjected to the acute pressure overload by raising the perfusion pressure. The activation of calcineurin was evaluated by its complex formation with calmodulin and by its R-II phosphopeptide dephosphorylation. CaMK II activation was evaluated by its autophosphorylation. Expression of c-fos mRNA and rates of protein synthesis were measured by northern blot anal. and by <sup>14</sup>C-phenylalanine incorporation, resp. Acute pressure overload

significantly increased calcineurin activity, CaMK II activity, c-fos expression and protein synthesis. Cyclosporin A and FK506, the calcineurin inhibitors, significantly inhibited the increases in both c-fos expression and protein synthesis. KN62, a CaMK II inhibitor, also significantly prevented the increase in protein synthesis, whereas it failed to affect the expression of c-fos. These results suggest that both calcineurin and CaMK II pathways are critical in the pressure overload-induced acceleration of protein synthesis, and that transcription of c-fos gene is regulated by calcineurin pathway but not by CaMK II pathway.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:375281 HCAPLUS

DOCUMENT NUMBER: 139:225202

TITLE: Differential mutation patterns in thymidine kinase and DNA polymerase genes of herpes simplex virus type 1 clones passaged in the presence of acyclovir or penciclovir

AUTHOR(S): Suzutani, Tatsuo; Ishioka, Ken; De Clercq, Erik; Ishibashi, Kei; Kaneko, Hisatoshi; Kira, Toshihiko; Hashimoto, Koh-Ichi; Ogasawara, Masahiro; Ohtani, Katsuki; **Wakamiya, Nobutaka**; Saijo, Masayuki

CORPORATE SOURCE: Department of Microbiology, Fukushima Medical University, Fukushima, 960-1295, Japan

SOURCE: Antimicrobial Agents and Chemotherapy (2003), 47(5), 1707-1713

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A total of 21 clones of acyclovir (ACV)-resistant (ACVr) herpes simplex virus type 1 (HSV-1) and 23 clones of penciclovir (PCV)-resistant (PCVr) HSV-1, emerging during serial passages in the presence of ACV or PCV, were isolated under conditions excluding contamination of resistant mutants in the starting virus culture, and their mutations in the thymidine kinase (TK) and DNA polymerase (DNA Pol) genes were analyzed comparatively. Mutations in the TK genes from ACVr mutants consisted of 50% single nucleotide substitutions and 50% frameshift mutations, while the corresponding figures for the PCVr mutants were 4 and 96%, resp. ( $P < 0.001$ ). Eight of the 21 ACVr clones, but none of the 23 PCVr clones, had mutations in DNA Pol. Only nucleotide substitution(s) could be detected in the DNA Pol gene, as the gene is essential for virus replication. Therefore, the results for the DNA Pol mutants are concordant with those for the TK mutants in that a single nucleotide substitution was commonly observed in the ACVr, but not in the PCVr, mutants. These results clearly point to differential mutation patterns between ACVr and PCVr HSV-1 clones.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:149608 HCAPLUS

DOCUMENT NUMBER: 138:349630

TITLE: Haplotype analysis of the human collectin placenta 1 (hCL-P1) gene

AUTHOR(S): Ohmori, H.; Makita, Y.; Funamizu, M.; Chiba, S.; Ohtani, K.; Suzuki, Y.; **Wakamiya, N.**; Hata, A.

CORPORATE SOURCE: Department of Public Health, Asahikawa Medical College, Asahikawa, 078-8510, Japan

SOURCE: Journal of Human Genetics (2003), 48(2), 82-85

CODEN: JHGEFR; ISSN: 1434-5161

PUBLISHER: Springer-Verlag Tokyo  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Collectins are a family of C-type lectins found in vertebrates. These proteins have four regions, a relatively short N-terminal region, a collagen-like region, an alpha-helical coiled coil, and a carbohydrate recognition domain. Collectins are involved in host defense through their ability to bind carbohydrate antigens on microorganisms. Type A scavenger receptors are classical-type scavenger receptors that also have collagen-like domains. We previously described a new scavenger receptor, collectin from placenta [collectin placenta 1 (CL-P1)]. CL-P1 is a type II membrane protein with all four regions. We found that CL-P1 can bind and phagocytize both bacteria and yeast. In addition to that, it reacts with oxidized low-d. lipoprotein (LDL) but not with acetylated LDL. These results suggest that CL-P1 might play important roles in host defenses and/or atherosclerosis formation. One rational strategy to study the role of CL-P1 in these pathol. conditions would be to perform a haplotype association study using human samples. As a first step for this strategy, we analyzed the haplotype structure of the CL-P1 gene. By sequencing the CL-P1 gene in ten Japanese volunteers, we identified five single-nucleotide polymorphisms (SNPs) with a minor allele frequency of at least 29%. To obtain SNPs in the 5'-upstream region of the gene, we screened a total of 20 SNPs described in the database and finally picked up one SNP for the present study. Thus, a total of six SNPs, one in the 5'-upstream region, two in intron 2, one in exon 5, and two in exon 6, were used to analyze the haplotype structure of the gene, with DNAs derived from 54 individuals (108 alleles). The anal. revealed that only two of six SNPs showed significant linkage disequil. ( $r^2 > 0.5$ ) with each other. This haplotype information may be useful in disease-association studies in which a contribution of the CL-P1 gene has been suspected, especially in immunol. disturbance or atherosclerosis. Two SNPs in exon 6, both leading to amino acid substitutions, could be candidates for influencing disease susceptibility.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:846049 HCAPLUS

DOCUMENT NUMBER: 138:131919

TITLE: Molecular cloning of mouse collectin liver 1

AUTHOR(S): Kawai, Takao; Suzuki, Yasuhiko; Eda, Souji; Kase, Tetsuo; Ohtani, Katsuki; Sakai, Yoshinori; Keshi, Hiroyuki; Fukuoh, Atsushi; Sakamoto, Takashi; Nozaki, Masami; Copeland, Neal G.; Jenkins, Nancy A.;

**Wakamiya, Nobutaka**

CORPORATE SOURCE: Division of Food Microbiology, Osaka Prefectural Institute of Public Health, Osaka, 537-0025, Japan  
 SOURCE: Bioscience, Biotechnology, and Biochemistry (2002), 66(10), 2134-2145

CODEN: BBBIEJ; ISSN: 0916-8451

PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Collectins are members of the superfamily of vertebrate C-type lectins that contain a collagen-like region, and are involved in first-line host defense. We earlier cloned and characterized a new kind of collectin, collectin liver 1 (CL-L1). In this study, we isolated the mouse homolog of CL-L1 encoding 277 amino acid residues; its deduced protein sequence was 88% identical with human CL-L1. Mouse CL-L1 mRNA was expressed mainly in the liver and stomach, but was found also in muscles, testes, intestines, and embryos. In mouse embryos, the level of CL-L1 mRNA

gradually increased with embryonic age. In 16-day-old mouse embryos, CL-L1 mRNA was expressed in the liver, amnion, and visceral yolk sac. The mouse CL-L1 gene was found on chromosome 15 in a region syntenic with human chromosome 8q. CL-L1 was a highly conserved protein in mammals, birds, and fish.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:541149 HCAPLUS

DOCUMENT NUMBER: 137:260600

TITLE: Contribution of macrophage migration inhibitory factor to extracellular signal-regulated kinase activation by oxidative stress in cardiomyocytes

AUTHOR(S): Fukuzawa, Jun; Nishihira, Jun; Hasebe, Naoyuki; Haneda, Takashi; Osaki, Junzo; Saito, Tetsuya; Nomura, Tomoaki; Fujino, Takayuki; **Wakamiya, Nobutaka**; Kikuchi, Kenjiro

CORPORATE SOURCE: First Department of Medicine, Asahikawa Medical College, Asahikawa, 078-8510, Japan

SOURCE: Journal of Biological Chemistry (2002), 277(28), 24889-24895

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In response to oxidative stress, the pathogenesis of a number of cardiovascular events and several genes are stimulated by extracellular signal-regulated kinases (ERK1/2). Biphasic (early, 10 min; and delayed, 120 min) ERK1/2 activation by H<sub>2</sub>O<sub>2</sub>, a reactive oxygen species, was observed in cultured neonatal rat cardiomyocytes. We investigated the hypothesis that the delayed activation of ERK1/2 depends on a factor secreted by oxidative stress (FSO). The delayed activation was inhibited by calphostin C, a protein kinase C inhibitor. Conditioned medium (CM) obtained from cells stimulated with H<sub>2</sub>O<sub>2</sub> induced rapid and monophasic ERK1/2 activation, which was not inhibited by calphostin C. In contrast, calphostin C-pretreated CM did not activate ERK1/2. Macrophage migration inhibitory factor (MIF) was one of the candidate FSOs activating ERK1/2. The existence of MIF in CM, the recombinant MIF-stimulated ERK1/2 rapid activation, and anti-MIF neutralizing antibody-induced inhibition of the delayed activation implied that MIF could be the FSO. Pretreatment of cardiomyocytes with a mitogen-activated protein kinase/ERK kinase (MEK) inhibitor did not suppress the MIF secretion, although it prevented the ERK1/2 activation by H<sub>2</sub>O<sub>2</sub>. These results indicate that MIF is secreted from cardiomyocytes as a result of oxidative stress and activates ERK1/2 through a MEK1/2-dependent mechanism, although the secretion is not regulated by ERK1/2 but by protein kinase C.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:369516 HCAPLUS

DOCUMENT NUMBER: 137:199905

TITLE: Identification of human mannose binding lectin (MBL) recognition sites for novel inhibitory antibodies

AUTHOR(S): Zhao, Hui; **Wakamiya, Nobutaka**; Suzuki,

Yasuhiko; Hamonko, Matthew T.; Stahl, Gregory L.

CORPORATE SOURCE: Center for Experimental Therapeutics & Reperfusion Injury, Department of Anesthesiology, Perioperative and Pain Medicine, Harvard Medical School, Brigham and Women's Hospital, Boston, MA, 02115, USA

SOURCE: Hybridoma and Hybridomics (2002), 21(1), 25-36

CODEN: HHYYBF; ISSN: 1536-8599  
 PUBLISHER: Mary Ann Liebert, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Mannose binding lectin (MBL) binding initiates activation of the lectin complement pathway. Recent studies from our laboratory have demonstrated that MBL-dependent complement activation mediates cellular injury following oxidative stress in vivo and in vitro. A panel of novel inhibitory monoclonal antibodies (MAbs) against MBL (e.g., MAb 3F8, 2A9, and hMBL1.2) has been developed that inhibit MBL binding and lectin pathway activation. Here, we further characterized the interactions of these MAbs and their Fab fragments to MBL. Whole MAbs or their Fab fragments bound to MBL with relatively high affinity. Fab fragments of 3F8 were functionally effective in inhibiting MBL-dependent complement activation, however, steric hindrance of MAb 2A9 was essential for inhibition of MBL-dependent complement activation. We identified the hinge region, and residues EDCVLLL within the carbohydrate recognition domain of MBL as the recognition sites for MAb 3F8 and 2A9, resp. The interaction of MAbs (e.g., 3F8 and 2A9) to MBL was dependent on the conformation of their recognition sites. These findings demonstrate that MBL binding can be inhibited by at least two sep. and independent mechanisms.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:276816 HCAPLUS

DOCUMENT NUMBER: 137:183425

TITLE: Mannose-binding lectin and the prognosis of fulminant hepatic failure caused by HBV infection

AUTHOR(S): Hakozaiki, Yukiya; Yoshiba, Makoto; Sekiyama, Kazuhiko; Seike, Eiji; Iwamoto, Junichi; Mitani, Keiji; Mine, Masafumi; Morizane, Toshio; Ohtani, Katsuki; Suzuki, Yasuhiko; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Department of Internal Medicine, Japan Defense Forces Central Hospital, Tokyo, Japan

SOURCE: Liver (Oxford, United Kingdom) (2002), 22(1), 29-34  
 CODEN: LIVEDR; ISSN: 0106-9543

PUBLISHER: Blackwell Munksgaard

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The mannose-binding lectin (MBL) gene was reported to play an important role in determining the clin. outcome of persistent hepatitis B virus (HBV) infection. We investigated serum MBL concns. and MBL gene mutations to determine whether they were related to the prognosis of patients with fulminant hepatic failure (FHF) caused by HBV infection. We investigated serum MBL concns. and MBL gene mutations in 43 HBV-infected Japanese patients with FHF and 260 HBsAg-neg. healthy controls. Serum MBL concns. were measured by an ELISA, and mutations in the MBL gene were analyzed by nested PCR and direct DNA sequencing. Only a mutation in codon 54 of the MBL gene was found. The frequency of this mutation in nonsurvivors (40%, 8/20) was higher than in survivors (13%, 3/23), and the difference was slightly significant ( $p = 0.043$ ). The H allele frequency in survivors (70.5%, 31/44) was higher than in nonsurvivors (39.5%, 15/38) ( $p = 0.0048$ ). Because of these factors the mean serum MBL concentration in survivors, 1.61  $\mu\text{g/mL}$  (range 0.3-3.86), was significantly higher than in nonsurvivors, 0.79  $\mu\text{g/mL}$  (range 0.04-1.51) ( $p < 0.0001$ ). The likelihood ratio for nonsurvival was 0 for over 2.0  $\mu\text{g/mL}$ , 0.67 for 1.0-2.0  $\mu\text{g/mL}$ , and 2.24 for 0-1.0  $\mu\text{g/mL}$ . The mutation in codon 54 of the MBL gene tended to be higher in nonsurvivors than in survivors. The H allele frequency (high producing allele in H/Y) in survivors was higher than that in nonsurvivors. High levels of serum MBL correlated with the survival of patients with FHF due to HBV infection. Serum MBL may be useful as a predictive factor for the survival of patients with FHF caused by HBV.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:251876 HCAPLUS  
 DOCUMENT NUMBER: 136:275708  
 TITLE: Methods for detecting anti-viral activity of  
 calcium-dependent lectins  
 INVENTOR(S): **Wakamiya, Nobutaka**  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 11,735.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6365342	B1	20020402	US 1998-29156	19980803
WO 9707210	A1	19970227	WO 1996-JP173	19960125
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6110708	A	20000829	US 1998-11735	19980522
US 2002168627	A1	20021114	US 2001-7408	20011108
PRIORITY APPLN. INFO.:			JP 1995-209698	A 19950817
			WO 1996-JP173	W 19960125
			US 1998-11735	A2 19980522
			WO 1995-JP2035	A 19951002
			US 1998-29156	A3 19980803

AB The invention concerns a recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a protein-constituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs;. The invention also provides a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:177628 HCAPLUS  
 DOCUMENT NUMBER: 137:215265  
 TITLE: Infection prevention and collectin family  
 AUTHOR(S): Suzuki, Sadahiko; **Wakamiya, Nobutaka**  
 CORPORATE SOURCE: Department of Pathology, Osaka Prefectural Institute  
 of Public Health, Japan  
 SOURCE: Annual Review Men'eki (2002) 217-225  
 CODEN: ARMNCI  
 PUBLISHER: Chugai Igakusha  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese  
 AB A review discusses the preventive role of collectin family in infectious diseases.

L1 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:798277 HCAPLUS  
 DOCUMENT NUMBER: 135:353796

TITLE: cDNA and protein sequences of novel collectins (CL-L2)  
 from human and mouse and their uses for drug screening  
 INVENTOR(S): **Wakamiya, Nobutaka**; Keshi, Hiroyuki; Ohtani,  
 Katsuki; Sakamoto, Takashi; Kishi, Yuichiro  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 134 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081401	A1	20011101	WO 2001-JP3468	20010423
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1283214	A1	20030212	EP 2001-922014	20010423
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003158382	A1	20030821	US 2003-258105	20030319
PRIORITY APPLN. INFO.: JP 2000-120358 A 20000421 WO 2001-JP3468 W 20010423				

AB The invention provides the cDNA and protein sequence of human and mouse collectins (CL-L2) and splicing derivs. of CL-L2 cloned from EST(expression sequence tags). The CL-L2s contain Gly-Xaa-Yaa repeating motif in N-terminal of the sequence and CRD domain. The purified CL-L2 provided in this invention showed carbohydrate binding activity. The invention also provides the tissue distribution of CL-L2 genes. The CL-L2s can be used for drug screening for identification of agonists and antagonists against CL-L2.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:598172 HCAPLUS  
 DOCUMENT NUMBER: 135:176473  
 TITLE: Human and mouse scavenger receptor SRCL-P1  
 INVENTOR(S): **Wakamiya, Nobutaka**  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 118 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001059107	A1	20010816	WO 2001-JP874	20010208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001030594 A5 20010820 AU 2001-30594 20010208  
EP 1262546 A1 20021204 EP 2001-902805 20010208

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003108904 A1 20030612 US 2002-203860 20020930

PRIORITY APPLN. INFO.:

JP 2000-35155 A 20000214  
JP 2000-309068 A 20001010  
WO 2001-JP874 W 20010208

AB Novel scavenger receptor SRCL-P1 from human and mouse having an SR structure and a collectin-like domain, cDNAs, recombinant expression, transgenic or knockout animal, antibodies and use in drug screening, are disclosed. Using a human placenta cDNA library, cDNA for a novel member belonging to the scavenger receptor family was cloned. Complementary DNA of this clone encodes a type II transmembranous glycoprotein containing a collagen-like domain, which are typical structural characteristics of scavenger receptor class A. This protein also contains a C-type lectin/carbohydrate recognition domain (C-type CRD) located at the C-terminus. We designated this as Scavenger Receptor with C-type Lectin (SRCL). When SRCL-P1 were expressed in CHO cells, they were localized in the plasma membrane forming clusters on the surface. Ligand-binding studies of CHO cells expressing SRCL-P1 demonstrated their specific binding capacity in *Escherichia coli* and *Staphylococcus aureus* as well as oxidized LDL and advanced glycation end products (AGE).

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:316482 HCAPLUS

DOCUMENT NUMBER: 135:356608

TITLE: Mannose-binding lectin gene: Polymorphisms in Japanese patients with systemic lupus erythematosus, rheumatoid arthritis and Sjogren's syndrome  
AUTHOR(S): Tsutsumi, A.; Sasaki, K.; **Wakamiya, N.**;  
Ichikawa, K.; Atsumi, T.; Ohtani, K.; Suzuki, Y.;  
Koike, T.; Sumida, T.

CORPORATE SOURCE: Division of Rheumatology, Department of Internal  
Medicine, Institute of Clinical Medicine, University  
of Tsukuba, Tsukuba, 305-8575, Japan

SOURCE: Genes and Immunity (2001), 2(2), 99-104  
CODEN: GEIMA2; ISSN: 1466-4879

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mannose-binding lectin (MBL) is a key element of the innate immunity, with a structure similar to complement C1q. Serum MBL levels are greatly affected by the polymorphisms of the MBL gene. In particular, codon 54 mutation of the MBL gene results in a significant reduction of serum MBL. To determine whether polymorphism of the MBL gene is associated with occurrence of systemic lupus erythematosus (SLE), rheumatoid arthritis and Sjogren's syndrome in the Japanese population, we analyzed the MBL gene polymorphisms of these patients and controls, by polymerase chain reaction-restriction fragment length polymorphism methods. We found that patients studied had a significantly higher frequency of having homozygous codon 54 mutation compared to controls. In particular, patients with SLE or Sjogren's syndrome showed higher probabilities of being homozygous for this mutation. Among subjects with the same genotype, SLE patients tended to have higher serum MBL concentration than controls. Anal. of the promoter region suggested that SLE patients heterozygous for the codon 54 mutation have a higher probability of having a low producing haplotype for the gene without the codon 54 mutation. We conclude that persons homozygous for

codon 54 mutation of the MBL gene may be prone to occurrence of autoimmune disorders including SLE, in the Japanese. MBL may have protective effects on occurrence and progression of SLE.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:306915 HCAPLUS  
 DOCUMENT NUMBER: 134:294187  
 TITLE: Molecular cloning of CL-P1 gene  
 AUTHOR(S): **Wakamiya, Nobutaka**; Suzuki, Yasuhiko  
 CORPORATE SOURCE: Dep. Microbiol., Asahikawa Med. Coll., 2-1-1-1  
 Midorigaoka Higashi, asahikawa, 078-8510, Japan  
 SOURCE: Seikagaku (2001), 73(3), 205-208  
 CODEN: SEIKAQ; ISSN: 0037-1017  
 PUBLISHER: Nippon Seikagakkai  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese

AB A review with 16 refs., on cloning of CL-P1 gene belonging to the collectin family involved in innate immunity, the structure of CL-P1, expression of CL-P1 on the vascular endothelium, and scavenger receptor-like functions of CL-P1.

L1 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:227227 HCAPLUS  
 DOCUMENT NUMBER: 134:365490  
 TITLE: Recombinant expression of human mannan-binding lectin  
 AUTHOR(S): Vorup-Jensen, Thomas; Sorensen, Esben S.; Jensen, Uffe B.; Schwaeble, Wilhelm; Kawasaki, Toshisuke; Ma, Yong; Uemura, Kazuhide; **Wakamiya, Nobutaka**; Suzuki, Yasuhiko; Jensen, Thomas G.; Takahashi, Kazue; Ezekowitz, R. Alan B.; Thiel, Steffen; Jensenius, Jens Chr.  
 CORPORATE SOURCE: Department of Medical Microbiology and Immunology, University of Aarhus, Aarhus C, 8000, Den.  
 SOURCE: International Immunopharmacology (2001), 1(4), 677-687  
 CODEN: IINMBA; ISSN: 1567-5769  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Mannan-binding lectin (MBL) constitutes an important part of the innate immune defense by effecting the deposition of complement on microbial surfaces. MBL deficiency is among the most common primary immunodeficiencies and is associated with recurrent infections and symptoms of poor immune complex clearance. Plasma-derived MBL has been used in reconstitution therapy but concerns over viral contamination and production capacity point to recombinant MBL (rMBL) as a future source of this protein for clin. use. Natural human MBL is an oligomer of up to 18 identical polypeptide chains. The synthesis of rMBL has been accomplished in several mammalian cell lines, however, the recombinant protein differed structurally from natural MBL. In this, study the authors compare rMBL produced in myeloma cells, Chinese hamster ovary (CHO) cells, human hepatocytes, and human embryonic kidney (HEK) cells. The authors report that rMBL structurally and functionally similar to natural MBL can be obtained through synthesis in the human embryonic kidney cells followed by selective carbohydrate affinity chromatog.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:896277 HCAPLUS  
 DOCUMENT NUMBER: 135:75438  
 TITLE: An attempt to downregulate the Hanganutziu-Deicher

AUTHOR(S): antigen by overexpression of glycosyltransferases  
Murase, A.; Miyagawa, S.; Koma, M.; Ikeda, Y.; Honke,  
K.; **Wakamiya, N.**; Tuji, S.; Shirakura, R.;  
Taniguchi, N.

CORPORATE SOURCE: Division of Organ Transplantation, Biomedical Research  
Center, Osaka University Graduate School of Medicine,  
Osaka University Medical School, Osaka, Suita, Japan

SOURCE: Transplantation Proceedings (2000), 32(7), 2507-2508  
CODEN: TRPPA8; ISSN: 0041-1345

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB With the exception of humans and chickens, the Hanganutziu-Deicher antigen  
is widely distributed in the animal kingdom. This suggests that the HD  
antigen could cause a strong humoral response in swine-to-human  
transplantation after the hyperacute rejection is avoided. The present  
study was designed to evaluate the possibility that the HD antigen on  
swine endothelial cells could be downregulated to the overexpression of  
various glycosyltransferases. Results indicate that human  
 $\beta$ -1,4-N-acetylglucosaminyltransferase III has the potential to reduce  
HD antigen levels on swine endothelial cells.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:730298 HCAPLUS

DOCUMENT NUMBER: 134:191500

TITLE: Mannose-binding lectin polymorphisms in patients with  
hepatitis C virus infection

AUTHOR(S): Sasaki, K.; Tsutsumi, A.; **Wakamiya, N.**;  
Ohtani, K.; Suzuki, Y.; Watanabe, Y.; Nakayama, N.;  
Koike, T.

CORPORATE SOURCE: Dept. of Medicine II, Hokkaido University School of  
Medicine, Sapporo, Japan

SOURCE: Scandinavian Journal of Gastroenterology (2000),  
35(9), 960-965  
CODEN: SJGRA4; ISSN: 0036-5521

PUBLISHER: Taylor & Francis

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Persistent infection with hepatitis C virus (HCV) leads to liver cirrhosis  
(LC) and often to liver cancer. Little is known about host factors that  
determine the variable natural history. Mannose-binding lectin (MBL) is an  
important constituent of the innate immune system. In white patients  
there is an association between codon 52 mutation of the MBL gene and  
persistent hepatitis B virus (HBV) infection. To determine whether MBL gene  
polymorphisms affect the course of HCV infection, the authors investigated  
the association between MBL gene polymorphisms and HCV infection in Japanese  
subjects. Fifty-two HCV-infected Japanese patients (8 with chronic  
inactive hepatitis (CIH), 31 with chronic active hepatitis (CAH), 13 with  
LC) and 50 normal controls were studied. MBL gene mutations were determined by  
polymerase chain reaction and restriction fragment length polymorphism  
analyses. Codon 52 and codon 57 mutations were absent in all subjects.  
Homozygous mutation in codon 54 was present in one (0.9%) patient.  
Heterozygous codon 54 mutation was present in 17 (32%) of the 52 patients  
and in 21 (41%) of the controls. No significant difference in the  
frequency of codon 54 mutation was observed between patient and control  
groups. However, although no significant relation was observed between MBL  
polymorphisms and the levels of HCV RNA, all patients with heterozygous or  
homozygous codon 54 mutations had CAH or LC. In contrast, 8 of the 34  
patients without codon 54 mutation remained at CIH. MBL may be one of the  
factors that influence the course of HCV infection.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:216336 HCAPLUS  
 DOCUMENT NUMBER: 132:235583  
 TITLE: Collectin family as host-defense lectins  
 AUTHOR(S): **Wakamiya, Nobutaka**; Suzuki, Yasuhiko  
 CORPORATE SOURCE: Res. Inst. for Microb. Dis., Osaka Univ., Yamada-oka,  
 Suita, Osaka, 565-0871, Japan  
 SOURCE: Tanpakushitsu Kakusan Koso (2000), 45(5), 655-663  
 CODEN: TAKKAJ; ISSN: 0039-9450  
 PUBLISHER: Kyoritsu Shuppan  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese  
 AB A review with 47 refs., on the structure and genes of collectins, physiol.  
 functions of collectins, mannan-binding lectin deficiency, mechanisms  
 regulating blood levels of collectins, role of collagen-like domain,  
 structure of carbohydrate recognition domains in relation to sugar  
 specificity of collectins, roles of collectins in host defense against  
 infections, and characterization of a newly cloned collectin CL-L1.

L1 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:145014 HCAPLUS  
 DOCUMENT NUMBER: 132:204040  
 TITLE: Cloning of cDNA for novel human collectin for  
 developing antibacterial and antiviral drugs  
 INVENTOR(S): **Wakamiya, Nobutaka**  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 106 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011161	A1	20000302	WO 1999-JP4552	19990824
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2340934	AA	20000302	CA 1999-2340934	19990824
AU 9953056	A1	20000314	AU 1999-53056	19990824
AU 751173	B2	20020808		
EP 1108786	A1	20010620	EP 1999-938607	19990824
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

PRIORITY APPLN. INFO.: JP 1998-237611 A 19980824  
 WO 1999-JP4552 W 19990824

AB The cDNA encoding a novel collectin is isolated from a human placenta cDNA library by using the screening probes prepared from a human fetus clone (I.M.A.G.E. Consortium Clone ID 34472). The novel collectin is comprised of 342 amino acids that contains a Ca<sup>2+</sup>-dependent carbohydrate recognition domain (CRD) and a collagen-like domain. Human cells contain a single copy of the collectin gene. Also described are monoclonal antibodies to the collectin and use of immunoassay, oligonucleotide probes derived from the cDNA, transgenic mice expressing the collectin, the collectin gene

knockout mice, etc. Amino acid sequences deduced from other open reading frames in the cDNA sequence are also shown. The novel collectin can be used for developing antibacterial and antiviral drugs.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:524202 HCAPLUS

DOCUMENT NUMBER: 131:270696

TITLE: Critical role of conserved amino acid residues in complementarity determining regions for antibody specificity and polypeptide-chain assembly

AUTHOR(S): Kinoshita, Takeshi; Suzuki, Yasuhiko; Ida, Sohji; Naito, Akihiro; **Wakamiya, Nobutaka**; Kozono, Haruo; Azuma, Takachika

CORPORATE SOURCE: Central Research Laboratory, Nippon Suisan Ltd., Tokyo, 192, Japan

SOURCE: Research Communications in Biochemistry and Cell & Molecular Biology (1998), 2(3 & 4), 275-288  
CODEN: RCBBFC; ISSN: 1087-111X

PUBLISHER: PJD Publications Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fab fragments of a wild type or mutants of an anti-(4-hydroxy-3-nitrophenyl)acetyl mAb, B2, were expressed on the surface of a filamentous phage in order to examine the role of conserved amino acid residues at positions 32, 50, and 60 in complementarity determining regions. These had been predicted previously as specificity-determining residues. Phages expressing mutant Fabs with replacement of a single amino acid at these positions in complementarity determining regions of the heavy-chain V region showed a large to complete loss of ability to bind haptens. In addition, substitution of Tyr60 hindered formation of Fab, suggesting that this amino acid residue is critical for the interaction between V domains in heavy and light chains. Thus, the amino acid residues conserved in somatic mutation of complementarity determining regions are important in determining Ab-specificity as well as in inter-V domain interactions.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 22 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:480718 HCAPLUS

DOCUMENT NUMBER: 131:154449

TITLE: Recombinant preparation of human mannan-binding protein

INVENTOR(S): **Wakamiya, Nobutaka**

PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11206378	A2	19990803	JP 1998-11864	19980123
CA 2318851	AA	19990729	CA 1998-2318851	19980723
WO 9937676	A1	19990729	WO 1998-JP3311	19980723
W: CA, US				
US 2003162248	A1	20030828	US 2003-54536	20030106
PRIORITY APPLN. INFO.:			JP 1998-11864	A 19980123
			WO 1998-JP3311	W 19980723
			US 2000-600950	B3 20000908

AB Described is a method of producing human mannan-binding protein (rhMBP) by expression of the encoding cDNA in a host cell followed by chromatog. purification. The rhMBP purified by gel filtration exhibits a peak absorption at 280 nm and mol. weight 300- or 1,150 kDa. Expression of rhMBP in the transgenic dihydrofolate reductase-deficient CHO cells from plasmid pNOW1-hMBP was demonstrated. The rhMBP is able to block the influenza virus-mediated erythrocyte agglutination.

L1 ANSWER 23 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:480717 HCAPLUS  
 DOCUMENT NUMBER: 131:156226  
 TITLE: Cloning of cDNA for novel human collectin  
 INVENTOR(S): **Wakamiya, Nobutaka**  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11206377	A2	19990803	JP 1998-11281	19980123
CA 2319084	AA	19990729	CA 1998-2319084	19980724
WO 9937767	A1	19990729	WO 1998-JP3328	19980724

W: CA, US

PRIORITY APPLN. INFO.: JP 1998-11281 A 19980123  
 WO 1998-JP3328 W 19980724

AB A novel human collectin is identified and its encoding cDNA sequence is isolated by screening a human liver cDNA library using the primers/probes derived from GenBank Number R29493 that contains a consensus sequence among human collectins such MBP, SP-A and SP-D. The collectin is characterized as having (1) Ca<sup>2+</sup>-dependent carbohydrate recognition domain (CRD); (2) a neck domain; (3) a collagen-like domain; and (4) a cysteine-containing N-terminus. The collectin may be used for developing antiviral agents.

L1 ANSWER 24 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:470301 HCAPLUS  
 DOCUMENT NUMBER: 131:241870  
 TITLE: Human mannan-binding lectin inhibits the infection of influenza A virus without complement  
 AUTHOR(S): Kase, T.; Suzuki, Y.; Kawai, T.; Sakamoto, T.; Ohtani, K.; Eda, S.; Maeda, A.; Okuno, Y.; Kurimura, T.;  
**Wakamiya, N.**  
 CORPORATE SOURCE: Department of Virology, Osaka Prefectural Institute of Public Health, Osaka, Japan  
 SOURCE: Immunology (1999), 97(3), 385-392  
 CODEN: IMMUAM; ISSN: 0019-2805  
 PUBLISHER: Blackwell Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Mannan-binding lectin (MBL) is a C-type serum lectin that is believed to play an important role in innate immunity. It is one of the collectin family, which is characterized by having a collagen-like sequence and a carbohydrate recognition domain. MBL can bind to sugar determinants of several micro-organisms, neutralize them and inhibit infection by complement activation through the lectin pathway and opsonization by collectin receptors. Bovine conglutinin and mouse MBL inhibit the infective and hemagglutinating activities of influenza A viruses. To identify the direct antiviral activity of human MBL against influenza A viruses that does not depend on complement activation or opsonization, the authors isolated native MBL from human serum and produced a recombinant

MBL in Chinese hamster ovary (CHO) cells using a pNOW/CMV-A expression vector system. Native and recombinant human MBL exhibited neutralization activity against A/Ibaraki/1/90 (H3N2), with the plaque focus reduction assay at the viral attachment phase. Their activities were inhibited by EDTA, mannose and anti-human MBL antibody. Furthermore, at the viral expansion phase both MBL in culture medium prevented viral spreading from primary infected cells to neighbor cells. A virus recovery study using EDTA indicated that interaction between MBL and virus was reversible and non-damaging to the virus. Lectin blot and immunohistochem. assays showed that these antiviral activities involved binding between MBL and two viral envelope proteins, hemagglutinin and neuraminidase. These findings suggest that human MBL can play an important role in innate immunity by direct viral neutralization and inhibition of viral spread, as well as an indirect role through opsonization and complement activation.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 25 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:317813 HCAPLUS

DOCUMENT NUMBER: 131:141029

TITLE: Molecular cloning of a novel human collectin from liver (CL-L1)

AUTHOR(S): Ohtani, Katsuki; Suzuki, Yasuhiko; Eda, Souji; Kawai, Takao; Kase, Tetsuo; Yamazaki, Hiroshi; Shimada, Tsutomu; Keshi, Hiroyuki; Sakai, Yoshinori; Fukuoh, Atsushi; Sakamoto, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Department of Pathology, Osaka Prefectural Institute of Public Health, Higashinari, Osaka, 537, Japan

SOURCE: Journal of Biological Chemistry (1999), 274(19), 13681-13689

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Collectins are a C-lectin family with collagen-like sequences and carbohydrate recognition domains. These proteins can bind to carbohydrate antigens of microorganisms and inhibit their infection by direct neutralization and agglutination, the activation of complement through the lectin pathway, and opsonization by collectin receptors. Here we report the cloning of a cDNA encoding human collectin from liver (CL-L1 (collectin liver 1)) that has typical collectin structural characteristics, consisting of an N-terminal cysteine-rich domain, a collagen-like domain, a neck domain, and a carbohydrate recognition domain. The cDNA has an insert of 831 base pairs coding for a protein of 277 amino acid residues. The deduced amino acid sequence shows that this collectin has a unique repeat of four lysine residues in its C-terminal area. Northern blot, Western blot, and RT-PCR analyses showed that CL-L1 is present mainly in liver as a cytosolic protein and at low levels in placenta. More sensitive analyses by RT-PCR showed that most tissues (except skeletal muscle) have CL-L1 mRNA. Zoo-blot anal. indicated that CL-L1 is limited to mammals and birds. A chromosomal localization study indicated that the CL-L1 gene localizes to chromosome 8q23-q24.1, different from chromosome 10 of other human collectin genes. Expression studies of fusion proteins lacking the collagen and N-terminal domains produced in *Escherichia coli* affirmed that CL-L1 binds mannose weakly. CL-L1 and recombinant CL-L1 fusion proteins do not bind to mannan columns. Anal. of the phylogenetic tree of CL-L1 and other collectins indicated that CL-L1 belongs to a fourth subfamily of collectins following the mannan-binding protein, surfactant protein A, and surfactant protein D subfamilies including bovine conglutinin and collectin-43 (CL-43). These findings indicate that CL-L1 may be involved in different biol. functions.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 26 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:781034 HCAPLUS  
 DOCUMENT NUMBER: 130:232960  
 TITLE: High-level and effective production of human mannan-binding lectin (MBL) in Chinese hamster ovary (CHO) cells  
 AUTHOR(S): Ohtani, Katsuki; Suzuki, Yasuhiko; Eda, Souji; Kawai, Takao; Kase, Tetsuo; Keshi, Hiroyuki; Sakai, Yoshinori; Yamamoto, Satoshi; Sakamoto, Takashi; **Wakamiya, Nobutaka**  
 CORPORATE SOURCE: Department of Pathology, Osaka Prefectural Institute of Public Health, Higashinari, Osaka, 537, Japan  
 SOURCE: Journal of Immunological Methods (1999), 222(1-2), 135-144  
 CODEN: JIMMBG; ISSN: 0022-1759  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB We have developed a high-expression system of recombinant human mannan-binding lectin (MBL) with CHO cells. Geneticin-resistant transformants harboring human MBL cDNA in the expression vector pNOW/CMV-A were screened by immunoblot anal. for secretion of recombinant MBL. Cloning and selection by both geneticin and methotrexate resulted in the production of recombinant MBL to a final concentration of 128.8 µg/mL in media after four days of culture. SDS-PAGE and gel-filtration analyses showed that recombinant MBL is characterized by two lower-order oligomeric structures (apparent mol. wts.: 1150 kDa and 300 kDa) compared to native MBL (apparent mol. weight: 1300 kDa). The recombinant human MBL has both sugar-binding and complement activation activity and, like native MBL, can inhibit hemagglutination of influenza A virus. Lectin blots with recombinant MBL indicate that it can bind such microorganisms as HIV and influenza virus suggesting that it might inhibit their infection of hosts. This high-level expression of human MBL with the full range of biol. activity will be useful for studies on the immunol. role of MBL in humans.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 27 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:515258 HCAPLUS  
 DOCUMENT NUMBER: 129:227177  
 TITLE: Characterization of truncated human mannan-binding protein (MBP) expressed in Escherichia coli  
 AUTHOR(S): Eda, Souji; Suzuki, Yasuhiko; Kawai, Takao; Ohtani, Katsuki; Kase, Tetsuo; Sakamoto, Takashi; **Wakamiya, Nobutaka**  
 CORPORATE SOURCE: Department of Pathology, Osaka Prefectural Institute of Public Health, Osaka, 537-0025, Japan  
 SOURCE: Bioscience, Biotechnology, and Biochemistry (1998), 62(7), 1326-1331  
 CODEN: BBBIEJ; ISSN: 0916-8451  
 PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Mannan-binding protein (MBP) is a calcium-dependent mammalian serum lectin important in first-line host defense. MBP belongs to the collectin family, which is characterized by an NH2-terminal cysteine-rich domain, a collagen-like domain, a neck domain, and a carbohydrate recognition domain (CRD). Recombinant human MBP, consisting of the short collagen region (2 repeats of Gly-Xaa-Yaa amino acid sequences), the neck domain, and the CRD, was expressed in E. coli. The truncated MBP was capable of forming

trimers by association of the neck domain and could bind sugar with a specificity similar to that of the native form. Results of hemagglutination inhibition (HI) assay of influenza A virus showed that the truncated MBP inhibited hemagglutination less strongly, although the native MBP induced the HI phenomenon. These results suggest that an oligomeric structure is an advantage for MBP to have full biol. activity against influenza A virus.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 28 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:233761 HCAPLUS

DOCUMENT NUMBER: 129:66588

TITLE: Molecular and biological characterization of rabbit mannan-binding protein (MBP)

AUTHOR(S): Kawai, Takao; Suzuki, Yasuhiko; Eda, Souji; Ohtani, Katsuki; Kase, Tetsuo; Sakamoto, Takashi; Uemura, Hidetoshi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Department of Food Microbiology, Osaka Prefectural Institute of Public Health, Osaka, 537, Japan

SOURCE: Glycobiology (1998), 8(3), 237-244

CODEN: GLYCE3; ISSN: 0959-6658

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mannan-binding protein (MBP) is a member of the collectin family of protein. There are two types of MBP, MBP-A and MBP-C, which were found in rodent (rats and mice), rhesus monkey, and cynomolgus monkey, while chimpanzee and human have only one MBP. It was considered that the loss of one MBP gene occurred during hominoid evolution. In this article two rabbit MBP, a liver and serum MBP, were characterized biol. and genetically. Analyses by SDS-PAGE under reduced condition and their amino acid sequences of both MBPs showed that they have a same mol. weight of 32 kDa and their amino acid sequences were identical. A serum MBP has a higher ability to activate complement than does a liver MBP; however, a liver MBP inhibits hemagglutination by influenza virus as strongly as a serum MBP does. The cDNA clones encoding the rabbit MBP were isolated from a rabbit cDNA liver library using whole cDNA of mouse MBP-C as a probe. The cDNA carried an insert of 744 bp coding for a protein of 247 acid residues with a signal peptide of 22 residues. The deduced amino acid sequence of the cDNA was identical to that of amino acid sequences of the 32-kDa proteins determined here. Northern blot anal. showed that mRNA transcripts of about 0.9 and 3.0 kb were expressed only in the liver. The anal. of the phylogenetic tree of rabbit and bovine MBPs and other collectins indicates that the loss of MBP gene occurred not only during hominoid evolution but also at some points after the separation of birds and mammals.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 29 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:654420 HCAPLUS

DOCUMENT NUMBER: 127:327959

TITLE: Characterization of recombinant bovine conglutinin expressed in a mammalian cell

AUTHOR(S): Suzuki, Yasuhiko; Eda, Souji; Kawai, Takao; Ohtani, Katsuki; Kase, Tetsuo; Sakamoto, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Department of Pathology, Osaka Prefectural Institute of Public Health, Higashinari, 537, Japan

SOURCE: Biochemical and Biophysical Research Communications (1997), 238(3), 856-860

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Academic  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The successful expression of recombinant bovine conglutinin in CHO cells is described as well as its phys. and biol. characteristics. Geneticin-resistant transformants harboring bovine conglutinin cDNA in the expression vector pNOW/CMV-A were screened by Western blot anal. for secretion into media of recombinant conglutinin. A 4-day amplification of the transgene with increasing concns. of methotrexate resulted in a dose-dependent increase in the production of recombinant conglutinin to a final concentration of 18.6 µg/mL of media. Recombinant conglutinin purified from this media by affinity column chromatog. on mannan-agarose had a migration pattern similar to that of native conglutinin on PAGE under reducing, nonreducing, and native conditions. Recombinant conglutinin exhibited sugar binding, conglutination, hemagglutination inhibition, and neutralization of influenza A virus, activities engaged in by the native conglutinin. This is the 1st report describing a high level of expression of a serum cruciform collectin with the full range of biol. activity.

L1 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:337597 HCAPLUS

DOCUMENT NUMBER: 127:16423

TITLE: Regulation of virus replication in cells latently infected with human immunodeficiency virus 1

AUTHOR(S): Owatari, S.; Zhang, J.; Gao, M.; Tanabe-Tochikura, A.; **Wakamiya, N.**; Tsuchie, H.; Kurimura, T.

CORPORATE SOURCE: Department of Viral Infections, Research Institute for Microbial Diseases, Osaka University, Osaka, 565, Japan

SOURCE: Acta Virologica (English Edition) (1997), 41(1), 21-26  
CODEN: AVIRA2; ISSN: 0001-723X

PUBLISHER: Slovak Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monocytes/macrophages have been known to play an important role in the initiation and propagation of human immunodeficiency virus 1 (HIV-1) infection. To analyze the function of these cells during the clin. asymptomatic period of infection, the authors examined the effect of murine peritoneal macrophages and human peripheral blood macrophages on 2 cell lines latently infected with HIV-1, a promonocytic cell line, U1, and a T-cell line, ACH-2. Monokines of the murine peritoneal macrophages induced viral expression in U1, but not in ACH-2 cells. Expts. employing transient transfection of U937 and CEM cells with HIV long terminal repeat (LTR)-chloramphenicol acetyl transferase (CAT) plasmids indicated that the effect of these monokines was due to specific activation of the HIV LTR. In contrast, supernatants of human macrophages induced viral expression in both ACH-2 and U1 cells. Thus, several monokines are active in regulating the transition from the clin. asymptomatic period of HIV infection to progression to AIDS.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 31 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:294637 HCAPLUS

DOCUMENT NUMBER: 127:16445

TITLE: Structure of a truncated human surfactant protein D is less effective in agglutinating bacteria than the native structure and fails to inhibit hemagglutination by influenza A virus

AUTHOR(S): Eda, Souji; Suzuki, Yasuhiko; Kawai, Takao; Ohtani, Katsuki; Kase, Tetsuo; Fujinaga, Yousuke; Sakamoto, Takashi; Kurimura, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Dep. Pathology, Food Microbiology and Virology, Osaka

SOURCE: Prefectural Inst. Public Health, Osaka, 537, Japan  
 Biochemical Journal (1997), 323(2), 393-399  
 CODEN: BIJOAK; ISSN: 0264-6021  
 PUBLISHER: Portland Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Surfactant protein D (SP-D) is a lung-specific protein that is synthesized and secreted by lung epithelial cells and is believed to play an important role in lung host defense. This protein belongs to the C-type lectin family, which is characterized by an N-terminal cysteine-rich domain, a collagen-like domain, a neck domain and a carbohydrate recognition domain (CRD). To elucidate the biol. actions of this animal lectin against such pathogens as micro-organisms, the biol. activities of a recombinant partial SP-D lacking a collagen-like domain were examined. A recombinant human SP-D, consisting of a short collagen region (two repeats of Gly-Xaa-Yaa amino acid sequences), the neck domain and the CRD, was expressed in *Escherichia coli*. The recombinant SP-D was purified on a nickel column and then on a maltose-agarose column. This protein can form a trimeric structure owing to the neck domain and exhibits sugar-binding activity and specificity similar to those of native human SP-D. The recombinant SP-D caused dose-dependent and calcium-dependent agglutination of *E. coli* Y1088. The agglutination titer (the concentration required to achieve a 50% decrease in light transmission by agglutination) of recombinant SP-D was approx. 6-fold that of native SP-D. As for conglutination, the recombinant trimeric conglutinin required 8-16-fold higher concns. than the native counterpart. In hemagglutination inhibition (HI) of influenza A virus, although native and recombinant conglutinin showed similar levels of HI activity, the recombinant SP-D was unable to inhibit hemagglutination, even at a concentration approx. 120-fold that of the native SP-D. The lectin precipitation and lectin blot assays showed that the truncated SP-D could bind to influenza A virus as well as native SP-D did. These results indicate that the agglutination activity of trimeric collectins can be largely retained, and furthermore that the oligomeric structure with several hands at opposite sites can enhance agglutination activity. The difference in HI activity against influenza A virus between native and recombinant SP-D suggests that SP-D uses a different mechanism from that of conglutinin to inhibit viral hemagglutination.

L1 ANSWER 32 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:238427 HCAPLUS  
 DOCUMENT NUMBER: 126:220708  
 TITLE: Recombinant conglutinin and process for producing the same as a virucidal agent  
 INVENTOR(S): **Wakamiya, Nobutaka**  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan; Wakamiya, Nobutaka  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9707133	A1	19970227	WO 1995-JP2035	19951002
W: AU, CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2229739	AA	19970227	CA 1995-2229739	19951002
CA 2229739	C	20030114		
AU 9536188	A1	19970312	AU 1995-36188	19951002
AU 698112	B2	19981022		
EP 846701	A1	19980610	EP 1995-933617	19951002

R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE  
 CA 2400143 AA 19970227 CA 1996-2400143 19960125  
 WO 9707210 A1 19970227 WO 1996-JP173 19960125  
 W: AU, CA, JP, KR, US  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 AU 9645470 A1 19970312 AU 1996-45470 19960125  
 AU 717207 B2 20000323  
 EP 856580 A1 19980805 EP 1996-901484 19960125  
 R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE  
 CA 2229775 C 20030722 CA 1996-2229775 19960125  
 US 6110708 A 20000829 US 1998-11735 19980522  
 US 2002168627 A1 20021114 US 2001-7408 20011108  
 PRIORITY APPLN. INFO.: JP 1995-209698 A 19950817  
 WO 1995-JP2035 W 19951002  
 WO 1996-JP173 W 19960125  
 US 1998-29156 A3 19980803

AB The invention involves a recombinant conglutinin containing a collagen region comprising six amino acid residues containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, Xaa representing a protein-constituting amino acid residue), a neck region of natural conglutinin and a sugar-chain recognition region of natural conglutinin, having an antiviral activity (neutralizing activity), which is expected to be applicable for medicinal uses.

L1 ANSWER 33 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1997:231158 HCAPLUS  
 DOCUMENT NUMBER: 126:207505  
 TITLE: Preparation of recombinant conglutinin as antiviral agents  
 INVENTOR(S): Wakamiya, Nobutaka  
 PATENT ASSIGNEE(S): Fuso Pharmaceutical Industries, Ltd., Japan; Wakamiya, Nobutaka  
 SOURCE: PCT Int. Appl., 47 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9707210	A1	19970227	WO 1996-JP173	19960125
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 9707133	A1	19970227	WO 1995-JP2035	19951002
W: AU, CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9645470	A1	19970312	AU 1996-45470	19960125
AU 717207	B2	20000323		
EP 856580	A1	19980805	EP 1996-901484	19960125
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
CA 2229775	C	20030722	CA 1996-2229775	19960125
US 6365342	B1	20020402	US 1998-29156	19980803
US 2002168627	A1	20021114	US 2001-7408	20011108
PRIORITY APPLN. INFO.: JP 1995-209698 A 19950817				
WO 1995-JP2035 A 19951002				
WO 1996-JP173 W 19960125				
US 1998-11735 A2 19980522				
US 1998-29156 A3 19980803				

AB Disclosed is a recombinant conglutinin which contains a collagen region consisting of six amino acids comprised of 2 oligopeptides Gly-Xaa-Xaa, the neck region of natural conglutinin, and the sugar chain recognition region of natural conglutinin. The recombinant conglutinin exhibits

antiviral activity (virus neutralizing activity) that has medical applications. Also disclosed is a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP), which process involves treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

L1 ANSWER 34 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:167800 HCAPLUS  
DOCUMENT NUMBER: 126:224193  
TITLE: Detection of proviruses and viral RNA in the early stages of feline immunodeficiency virus infection in cats: a possible model of the early stage of HIV infection  
AUTHOR(S): Ohkura, Takako; Shin, Yeon-Sil; **Wakamiya, Nobutaka**; Iwa, Nobuzo; Kurimura, Takashi  
CORPORATE SOURCE: Department of Viral Infections, Research Institute for Microbial Diseases, Osaka University, Osaka, 565, Japan  
SOURCE: Experimental Animals (1997), 46(1), 31-39  
CODEN: JID0AA; ISSN: 1341-1357  
PUBLISHER: Japanese Association for Laboratory Animal Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Feline immunodeficiency virus (FIV) infection in cats has been reported to be a useful animal model for human AIDS studies, especially in the early stages of infection. The authors examined the temporal changes in provirus detection in peripheral blood mononuclear cells (PBMC) and the distribution of FIV-DNA and RNA in feline tissues by the polymerase chain reaction at 10, 35, 70 days after i.v. inoculation of FIV. Viral DNA in the PBMC was detected three to four weeks after infection and its fluctuation was demonstrated for the first time. Ten days after infection, before seroconversion, proviruses were detected only in the mesenteric lymph nodes and intestines. At 35 and 70 days after infection, after seroconversion, proviruses were detected in most lymphoid organs and the salivary glands, but the expression of FIV-RNA was limited to the thymus at 70 days after infection. These results show that FIV-RNA is transcribed from proviral DNA exclusively in the thymus at this stage. The authors suggest that the quant. changes in detectable proviruses in the PBMC depend on the relation between the decrease in infected cells caused by cytolytic T lymphocytes and/or apoptosis and their increase caused by the release of a new supply of lymphocytes from the thymus.

L1 ANSWER 35 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:76058 HCAPLUS  
DOCUMENT NUMBER: 126:182802  
TITLE: Cloning and characterization of a cDNA encoding bovine mannan-binding protein  
AUTHOR(S): Kawai, Takao; Suzuki, Yasuhiko; Eda, Souji; Ohtani, Katsuki; Kase, Tetsuo; Fujinaga, Yousuke; Sakamoto, Takashi; Kurimura, Takashi; **Wakamiya, Nobutaka**  
CORPORATE SOURCE: Department of Food Microbiology, Osaka Prefectural Institute of Public Health, Higashinari, Osaka, Japan  
SOURCE: Gene (1997), 186(2), 161-165  
CODEN: GENED6; ISSN: 0378-1119  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB To identify the bovine mannan-binding protein (MBP), a search for the cDNA homolog of human MBP was carried out. cDNA clones encoding bovine MBP were isolated from a bovine liver cDNA library using a cDNA fragment encoding a short collagen region, neck domain and carbohydrate recognition

domain of human MBP. The cDNA carried an insert of 747 bp encoding a protein of 249 amino acid (aa) residues with a signal peptide of 19 aa. The mannan-binding protein fraction of bovine serum that eluted with 100 mM mannose from a mannan-Sepharose column was analyzed under reducing conditions by SDS-PAGE. The major band of 33 kDa obtained reacted with anti-human MBP rabbit serum. The partial aa sequence of the purified 33-kDa protein was identical to the aa sequence deduced from the obtained cDNA. Results of the passive hemolysis experiment using sheep erythrocytes coated with yeast mannan suggest that this MBP has the ability to activate complement. Northern blot anal. showed a 1.8-kb mRNA that was expressed only in the liver. Based on results of genomic anal., this bovine MBP is likely to be a homolog of human MBP and to also have homol. to rat and mouse MBP-C which are localized in liver cells rather than to rat and mouse MBP-A found in serum. Alignments of bovine collectins show that bovine MBP cannot be included among the other bovine collectins, such as bovine SP-D, conglutinin and CL-43. Finally, these genomic and biol. analyses indicate that the cDNA obtained here encoded a bovine serum MBP.

L1 ANSWER 36 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:325031 HCAPLUS

DOCUMENT NUMBER: 125:7960

TITLE: Recombinant bovine conglutinin, lacking the N-terminal and collagenous domains, has less conglutination activity but is able to inhibit hemagglutination by influenza A virus

AUTHOR(S): Eda, Souji; Suzuki, Yasuhiko; Kase, Tetsuo; Kawai, Takao; Ohtani, Katsuki; Sakamoto, Takashi; Kurimura, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Dep. Pathol. Virol. Food Microbiol., Osaka Prefectural Inst. Public Health, Osaka, 537, Japan

SOURCE: Biochemical Journal (1996), 316(1), 43-48

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conglutinin is a bovine serum protein which was first described as a vertebrate lectin. This protein belongs to the family of C-type lectins. These lectins are composed of four characteristic domains: (1) an N-terminal cysteine-rich domain, (2) a collagen-like domain, (3) a neck domain and (4) a carbohydrate recognition domain (CRD). Recently lectins have been shown to function as Ig-independent defense mols. due to a complement-mediated mechanism or opsonization. Our previous study showed that bovine conglutinin can inhibit hemagglutination by influenza A viruses and act by directly neutralizing them due to its lectin properties. In order to elucidate the biol. role of the collagen-like domain, a recombinant partial conglutinin lacking this collagen-like domain was produced in an Escherichia coli system and its biol. activities were examined. A 497 bp sequence, consisting of a short collagen region (two repeats of G-X-Y amino acid sequences), the neck domain, and the CRD of conglutinin cDNA, was amplified by the reverse-transcriptase PCR technique. The cDNA was transferred to a bacterial expression vector system (pRSET-A) and stable transfectants with a high level of conglutinin production were obtained. SDS/PAGE and Western blotting analyses showed a recombinant fusion protein of 27 kDa. Results of a crosslinking study and gel-filtration assay indicated that the recombinant conglutinin can form a trimeric structure and that it has sugar binding activity and specificity similar to that of native conglutinin. The recombinant conglutinin was also found to inhibit hemagglutination caused by influenza A virus as well as to possess less conglutination activity. These results suggest that in order for conglutinin to inhibit hemagglutination caused by the influenza virus, as well as to have sugar binding activity or to form trimers, it does not require the N-terminal and collagenous domains; however, they are essential for full conglutination activity.

L1 ANSWER 37 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:287487 HCAPLUS  
 DOCUMENT NUMBER: 125:1286  
 TITLE: Characterization of microsomal cytochrome P 450 enzymes involved in the oxidation of xenobiotic chemicals in human fetal livers and adult lungs  
 AUTHOR(S): Shimada, Tsutomu; Yamazaki, Hiroshi; Mimura, Mayumi; **Wakamiya, Nobutaka**; Ueng, Yune-Fang; Guengerich, F. Peter; Inui, Yukiharu  
 CORPORATE SOURCE: Osaka Prefectural Inst. Public Health, Osaka, 537, Japan  
 SOURCE: Drug Metabolism and Disposition (1996), 24(5), 515-522  
 CODEN: DMDSAI; ISSN: 0090-9556  
 PUBLISHER: Williams & Wilkins  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Levels and catalytic activities of cytochrome P 450 enzymes involved in the oxidation of drugs and carcinogens were determined in human adult lungs and fetal livers and compared with those in microsomes from adult livers. P 450 enzymes immunoreactive with anti-human P 4501A1 and anti-human P 4503A antibodies were detected in fetal liver microsomes by immunoblotting anal., and P 450s related to P 4501A1, 2A6, 2C9, 2E1, and 3A4 were determined in adult lung microsomes; all of these P 450 enzymes were detected in much higher amts. in adult liver microsomes except that P 4501A2 was only the 1A subfamily of P 450 found in adult livers. Drug oxidation activities with the substrates ethoxyresorufin, coumarin, 7-ethoxycoumarin, bufuralol, and testosterone were determined in these microsomes, and the authors found that none of the activities were higher in microsomes of adult lungs and fetal livers than in adult livers. Activation of procarcinogens to reactive metabolites that induce umu gene expression in Salmonella typhimurium TA1535/pSK1002 or NM2009 was also examined and it was found that activities with (+)- and (-)-enantiomers of 7,8-dihydroxy-7,8-dihydrobenzo[a]pyrene were higher in fetal liver microsomes than adult lung or liver microsomes. The adult liver and lung activities for these two procarcinogens were similar on the basis of microsomal protein contents despite the fact that P 450 contents are higher in liver than lung microsomes.  $\alpha$ -Naphthoflavone, a known inhibitor of P 4501A-related activities, did not affect these procarcinogen activation in fetal liver microsomes. Fetal liver microsomes catalyzed activation of aflatoxin B1 and sterigmatocystin, two procarcinogens known to be activated by P 4503A4/7 in humans, although activation of carcinogenic arylamines that are good substrates for P 4501A2 was much lower in microsomes of fetal livers and adult lungs than in adult livers. These results suggest that in human fetal livers, at least two P 450 enzymes, a form of P 450 that is immunoreactive to P 4501A1 and P 4503A7, are actually expressed and these enzymes are suggested as being involved in the activation of the (+)- and (-)-enantiomers of 7,8-dihydroxy-7,8-dihydrobenzo[a]pyrene and the carcinogenic mycotoxins, resp. The exact nature of the former enzyme in fetal livers is unknown. In adult human lungs, several P 450 enzymes are expressed, although the precise roles of these enzymes in the oxidation of xenobiotics were not determined due to the low level of expression of these P 450s.

L1 ANSWER 38 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:715780 HCAPLUS  
 DOCUMENT NUMBER: 123:109165  
 TITLE: Expression of the T antigen on a T-lymphoid cell line, SupT1  
 AUTHOR(S): Nakada, Hiroshi; Inoue, Mizue; Tanaka, Nobuhiro; **Wakamiya, Nobutaka**; Yamashina, Ikuo  
 CORPORATE SOURCE: Fac. Eng., Kyoto Sangyo Univ., Kyoto, 603, Japan  
 SOURCE: Glycoconjugate Journal (1995), 12(3), 356-9

CODEN: GLJOEW; ISSN: 0282-0080

PUBLISHER: Chapman &amp; Hall

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors have measured glycosyltransferase activities of SupT1 cells a T-lymphoid cell line shown to react with autoantibodies in the sera of many HIV patients. Since considerable  $\alpha$ -N-acetylgalactosaminyl-transferase and  $\beta$ 1,3-galactosyl-transferase activities were found in SupT1 cells, at least the O-glycan core 1 structure can probably be synthesized. FACS anal. using an anti-T monoclonal antibody showed expression of the T antigen (Gal  $\beta$ 1-3 GalNAc). Glycoproteins with the T antigen were isolated by immunopptn. with the anti-T antibody from a SupT1 cell lysate labeled metabolically with 3H-glucosamine and then analyzed by SDS-PAGE. It was revealed that the precipitate contained a glycoprotein with a mol. weight corresponding to that of leukosialin. O-glycans were prepared from the immunoppt. by alkaline-borohydrate treatment and then fractionated on Bio-Gel P-2, GalNAcOH and Gal-GalNAcOH being identified inter alia. These results suggest that an anti-T antibody may be included in the auto-antibodies found in HIV-1 infected individuals.

L1 ANSWER 39 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:421896 HCAPLUS

DOCUMENT NUMBER: 119:21896

TITLE: Cloning and sequencing of a cDNA coding for bovine conglutinin

AUTHOR(S): Suzuki, Yasuhiko; Yin, Yue Ping; Makino, Masanao; Kurimura, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Dep. Pathol., Osaka Prefect. Inst. Public Health, Osaka, 537, Japan

SOURCE: Biochemical and Biophysical Research Communications (1993), 191(2), 335-42

CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 912 bp bovine cDNA fragment encoding bovine conglutinin was amplified by the RT-PCR technique. Some cDNA clones encoding the bovine conglutinin were isolated from a bovine liver cDNA library using the specific probe obtained from the PCR product. These cDNAs carry an insert of 1113 bp coding for a protein of 371 amino acid residues with a signal peptide of 20 residues. The deduced amino acid sequence of cDNA agrees with that determined by conventional amino acid sequence anal. Two polyadenylation signal sequences were detected in the DNA sequence downstream of the 3' end of the gene. Southern blot anal. of total bovine genomic DNA indicated that there is only one copy of the gene encoding bovine conglutinin. Northern blot anal. of bovine tissues showed that conglutinin mRNA of about 1.5 kb is expressed in the liver and also slightly in the lung.

L1 ANSWER 40 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:247081 HCAPLUS

DOCUMENT NUMBER: 118:247081

TITLE: Antitumor activity of ceramides and glycosphingolipids in a murine tumor system

AUTHOR(S): Maru, Morimasa; Haraguchi, Muneo; Higashi, Hideyoshi; Kato, Shiro; Kurimura, Takashi; Naiki, Masaharu; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Shionogi Res. Lab., Shionogi and Co., Ltd., Osaka, 553, Japan

SOURCE: International Journal of Cancer (1993), 53(4), 645-50  
CODEN: IJCNAW; ISSN: 0020-7136

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The antitumor activity of 7 sphingolipids (2 ceramides and 5

glycosphingolipids) against the syngeneic murine ascitic tumors MH134 and MM102 in C3H mice was examined. Five of these compounds showed anti-tumor activity against the tumors, ceramide type-IV (Cer-IV) having the highest activity without cytotoxic or cytostatic activity. These results indicate that the fatty acid in ceramide and sugar chains binding to it affect the antitumor activity in vivo. The antitumor activity of Cer-IV depended on the time of treatment. Mice treated with Cer-IV one day after tumor implantation showed the highest rate of survival. The cured mice were resistant to rechallenge with the same tumor (MH134 → MH134, MM102 → MM102) but not with a heterologous tumor (MH134 → X5563, MM102 → X5563), indicating that the effect of Cer-IV may be due to in vivo induction of specific immunity. Studies with various antibodies demonstrated that the anti-tumor effect of Cer-IV was inhibited by all the antibodies tested (L3T4, Lyt-2, and Thy-1,2 T cells, macrophages, and TNFα) in the induction phase (before Cer-IV administration) and by the antibodies of L3T4 and TNFα in the effector phase (after Cer-IV administration). Therefore, the anti-tumor effect of Cer-IV in this system depended on the host immune response rather than on its direct cytotoxic and/or cytostatic action.

L1 ANSWER 41 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:79172 HCAPLUS

DOCUMENT NUMBER: 118:79172

TITLE: A prospective study on correlation between the decrease in anti-p17 antibody level and progression to AIDS in asymptomatic carriers of HIV

AUTHOR(S): Choudhury, Ahmed Murtaza; Yamada, Osamu; **Wakamiya, Nobutaka**; Kurimura, Takashi

CORPORATE SOURCE: Dep. Pathol., Res. Inst. Microbiol. Dis., Suita, 565, Japan

SOURCE: Microbiology and Immunology (1992), 36(8), 833-40  
CODEN: MIIMDV; ISSN: 0385-5600

DOCUMENT TYPE: Journal

LANGUAGE: English

AB As the majority of human immunodeficiency virus (HIV) carriers are in asymptomatic stage for a long period of time, it is important to investigate the factors or surrogate markers for conversion from asymptomatic to symptomatic stage. This study is designed to evaluate the relationship among virus isolation rate, anti-p17 antibody status, and progression to AIDS. The authors studied anti-p17 antibody status along with virus isolation in asymptomatic carriers and AIDS cases. Progression to AIDS was markedly associated with high rate of virus isolation and loss of anti-p17 antibody. In order to know the meaning of loss of anti-p17 antibody during the clin. course, anti-p17 antibody pos. and anti-p17 antibody neg. cases were followed up prospectively for the development of AIDS. None of the anti-p17 antibody pos. cases developed AIDS while 6 out of 16 anti-p17 neg. cases developed AIDS during observation period. Progression to AIDS was associated with loss of anti-p17 antibody. Identification of cases losing anti-p17 antibody in peripheral blood during asymptomatic period may help high-risk group who are in need of chemoprophylaxis. Moreover, study of anti-p17 antibody may be helpful in designing vaccine in future if it works as a neutralizing antibody to HIV in vivo.

L1 ANSWER 42 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:632015 HCAPLUS

DOCUMENT NUMBER: 117:232015

TITLE: Isolation and characterization of conglutinin as an influenza A virus inhibitor

AUTHOR(S): **Wakamiya, Nobutaka**; Okuno, Yoshinobu; Sasao, Fuyoko; Ueda, Shigeharu; Yoshimatsu, Kumiko; Naiki, Masaharu; Kurimura, Takashi

CORPORATE SOURCE: Res. Inst. Microb. Dis., Osaka Univ., Suita, 565,

SOURCE: Japan  
Biochemical and Biophysical Research Communications  
(1992), 187(3), 1270-8  
CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Normal horse and guinea pig sera contain  $\alpha$ 2-macroglobulin which inhibits the infectivity and hemagglutinating activity of influenza A viruses of the H2 and H3 subtypes. On the other hand, normal bovine serum contains a component termed  $\beta$  inhibitor that inhibits the infectivity and hemagglutinating activity of influenza A viruses of the H1 and H3 subtypes. To investigate the nature of the  $\beta$  inhibitor of influenza A virus, the conglutinin was purified and its characteristics examined. First, a high correlation was found between the hemagglutination inhibition (HI) titer and conglutinin titer in several bovine sera. The HI of bovine serum was mainly dependent on conglutinin because the HI activity was abrogated by N-acetylglucosamine but not by D-mannose. The conglutinin, purified from bovine serum, had neutralizing-activity as well as HI activity on influenza A viruses of the H1 and H3 subtypes. The HI activity of conglutinin was heat stable (56°, 30 min), Ca<sup>2+</sup>-dependent, and resistant to both neuraminidase and periodate treatments. The HI activity of purified conglutinin was blocked by N-acetylglucosamine but not by D-mannose. The conglutinin was bound to hemagglutinin which had high mannose and complex sugar chains and its binding was inhibited by N-acetylglucosamine and dependent on divalent cations. Thus, the  $\beta$ -like inhibitor activity of bovine serum is mainly dependent on conglutinin which inhibits hemagglutination and neutralizes the virus infectivity by its binding to a carbohydrate site on the HA.

L1 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:233489 HCAPLUS

DOCUMENT NUMBER: 116:233489

TITLE: Two chicken monoclonal antibodies specific for heterophil Hanganutziu-Deicher antigens

AUTHOR(S): Asaoka, Hideyuki; Nishinaka, Shigeyuki; **Wakamiya, Nobutaka**; Matsuda, Haruo; Murata, Masayoshi

CORPORATE SOURCE: Fac. Appl. Biol. Sci., Hiroshima Univ., Higashi-Hiroshima, 724, Japan

SOURCE: Immunology Letters (1992), 32(1), 91-6  
CODEN: IMLED6; ISSN: 0165-2478

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two chicken monoclonal antibodies (MAbs), HU/Ch2-7 and HU/Ch6-1, against heterophil Hanganutziu-Deicher (HD) antigens with N-glycolylneuraminic acid (NeuGc) at a terminal carbohydrate were established by cell fusions using chicken B cell lines lacking thymidine kinase and spleen cells from chickens immunized with II3NeuGc $\alpha$ -LacCer (HD3). The reactivities of these MAbs against several gangliosides including NeuGc-containing glycosphingolipids were examined by a TLC/immunostaining method. MAb HU/Ch2-7 (IgG) reacted strongly with HD3 and IV3NeuGc $\alpha$ -nLc4Cer (HD5) and weakly with VI3NeuGc $\alpha$ -nLc6Cer (HD7) and 4-O-acetyl-HD3. HU/Ch6-1 (IgG) reacted with HD3 and HD5, but did not react with the other HD antigens. The reactivities of these MAbs against HC antigen were greatly reduced by pre-treatment of the antigen with neuraminidase. These MAbs did not react with N-acetylneuraminic acid-containing gangliosides (GM1 and GM3). These results indicate that these two chicken MAbs are directed toward the antigenic epitope containing the NeuGc.

L1 ANSWER 44 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:4857 HCAPLUS

DOCUMENT NUMBER: 116:4857

TITLE: Expression of Hanganutziu-Deicher antigen in activated

human T lymphocytes

AUTHOR(S): **Wakamiya, Nobutaka**; Osaka, Yoshio; Wang, Daqing; Nakajima, Kazuhiro; Kato, Shiro; Kurimura, Takashi; Naiki, Masaharu

CORPORATE SOURCE: Res. Inst. Microbiol. Dis., Osaka Univ., Suita, 565, Japan

SOURCE: Biochemical and Biophysical Research Communications (1991), 181(1), 310-15  
CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hanganutziu-Deicher (HD) antigen is a heterophile antigen that is widely distributed in many animals other than humans and chickens and is highly immunogenic in humans and chickens. In the present study, expression of HD-antigenic glycoproteins was demonstrated in activated T lymphocytes by SDS-PAGE and immunoblotting. Treatment with IL-2 plus PMA induced a 29kD glycoprotein antigen detected under reducing conditions. It contained sialic acid in the epitope of the HD antigen because the expression was neuraminidase-sensitive. Treatment with PMA plus A 23187 or phytohemagglutinin (PHA) treatment and then PHA plus IL-2 treatment also induced 2 proteins of mol. weight 50kD and 70kD. These were not detected in all individuals examined. Thus, HD antigen is an activated T cell antigen and expressed as an isoantigen as it is expressed in cancerous tissues from some patients.

L1 ANSWER 45 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:4495 HCAPLUS

DOCUMENT NUMBER: 114:4495

TITLE: Heterogeneity of Hanganutziu-Deicher antigen glycoprotein in animal sera of different species

AUTHOR(S): Wang, Daqing; Fukui, Yukio; Ito, Tetsuya; Nakajima, Kazuhiro; Kato, Shiro; Naiki, Masaharu; Kurimura, Takashi; **Wakamiya, Nobutaka**

CORPORATE SOURCE: Res. Inst. Microb. Dis., Osaka Univ., Suita, 565, Japan

SOURCE: Japanese Journal of Veterinary Science (1990), 52(3), 567-72  
CODEN: NJUZA9; ISSN: 0021-5295

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To visualize the antigen mols. of 9 species, immunostaining was used with avian anti-N-glycolylneuraminyl-lactosyl ceramide antibody which recognizes the terminal N-glycosylneuraminic acid moiety of glycoconjugates as an epitope of Hanganutziu-Deicher (HD) antigen. Several HD antigen-active glycoproteins were detected in the sera of fetal calf, calf, horse, goat, monkey, rabbit, guinea pig, rat and mouse, with the exception of human serum. The HD antigenic proteins showed heterogeneity in their MWs and were not identical with any major band visualized with silver-staining, indicating that they are major components of serum proteins in each animal. Neuraminidase treatment destroyed the antigenicity of all proteins.

L1 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1990:5716 HCAPLUS

DOCUMENT NUMBER: 112:5716

TITLE: C-fms and CSF-1 expression in hematopoietic cells

AUTHOR(S): Kufe, D.; Horiguchi, J.; Sariban, E.; **Wakamiya, N.**

CORPORATE SOURCE: Dana-Farber Cancer Inst., Harvard Med. Sch., Boston, MA, 02115, USA

SOURCE: UCLA Symposia on Molecular and Cellular Biology, New Series (1989), 100(Mech. Action Ther. Appl. Biol. Cancer Immune Defic. Disord.), 13-27

CODEN: USMBD6; ISSN: 0735-9543

DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English

AB A review with 36 refs. of the expression of the proto-oncogene c-fms and of colony-stimulating factor-1 (CSF-1) in human monocytes.

L1 ANSWER 47 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:184967 HCAPLUS

DOCUMENT NUMBER: 108:184967

TITLE: Expression of the macrophage colony-stimulating factor and c-fms genes in human acute myeloblastic leukemia cells

AUTHOR(S): Rambaldi, Alessandro; **Wakamiya, Nabutaka**; Vellenga, Edo; Horiguchi, Junko; Warren, M. Kim; Kufe, Donald; Griffin, James D.

CORPORATE SOURCE: Div. Tumor Immunol., Dana-Farber Cancer Inst., Boston, MA, 02115, USA

SOURCE: Journal of Clinical Investigation (1988), 81(4), 1030-5

CODEN: JCINAO; ISSN: 0021-9738

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Macrophage colony-stimulating factor (CSF-1) is a growth factor required for growth and differentiation of mononuclear phagocytes. The effects of CSF-1 are mediated through binding to specific, high-affinity surface receptors encoded by the c-fms gene. CSF-1 and c-fms gene expression was investigated in fresh human acute myeloblastic leukemic cells by Northern blot hybridization using cDNA probes. The 4.0-kb CSF-1 transcripts were detected in 10 of 17 cases of acute myeloblastic leukemia (AML), while c-fms transcripts were detected in 7 of 15. Coexpression of CSF-1 and c-fms was observed in 5 cases, and in 5 other cases neither gene was expressed. In situ hybridization demonstrated that transcripts for CSF-1 were present in 70-90% of cells in each of 3 cases studied while c-fms mRNA was detected in 40-70% of cells. The constitutive expression of CSF-1 transcripts was associated with production of CSF-1 protein, although detectable amts. of CSF-1 were not secreted unless the cells were exposed to phorbol ester. Thus, leukemic myeloblasts from a subset of patients with AML express transcripts for both the CSF-1 and CSF-1 receptor genes, often in the same leukemic cells in vitro.

L1 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:510418 HCAPLUS

DOCUMENT NUMBER: 107:110418

TITLE: Detection of c-fms and CSF-1 RNA by in situ hybridization

AUTHOR(S): **Wakamiya, Nobutaka**; Horiguchi, Junko; Kufe, Donald

CORPORATE SOURCE: Dana-Farber Cancer Inst., Harvard Med. Sch., Boston, MA, 02115, USA

SOURCE: Leukemia (1987), 1(6), 518-20

CODEN: LEUKED; ISSN: 0887-6924

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Alkaline phosphatase detection of biotinylated gene v-fms and macrophage-specific colony-stimulating factor (CSF-1) cDNA probes in situ detected gene c-fms and CSF-1 transcripts in HL-60 cells induced along the monocytic lineage but not in uninduced cells. The specific detection of these transcripts is further supported by the absence of histochem. staining in RNase-treated cells and when using pBR322 plasmid without insert as the biotinylated probe. Finally, the results indicate that most of the induced HL-60 cells have detectable levels of both c-fms and CSF-1 RNA. This approach should be useful for studying expression of these genes in populations of leukemic blasts and normal hematopoietic cells.

L1 ANSWER 49 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:82740 HCAPLUS

DOCUMENT NUMBER: 106:82740

TITLE: Monoclonal antibodies to cowpox virus: polypeptide analysis of several major antigens

AUTHOR(S): Kitamoto, N.; Tanimoto, S.; Hiroi, K.; Ozaki, M.; Miyamoto, H.; **Wakamiya, N.**; Ikuta, K.; Ueda, S.; Kato, S.

CORPORATE SOURCE: Dep. Microbiol., Wakayama Med. Coll., Wakayama, 640, Japan

SOURCE: Journal of General Virology (1987), 68(1), 239-46  
CODEN: JGVIAY; ISSN: 0022-1317

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monoclonal antibodies directed against major antigens induced by cowpox virus (CPV) were produced. The specificities of these antibodies were established by immunopptn., immunoblotting and several serol. analyses, and from the cross-reactivities of these antibodies with cells infected with various other poxviruses, ectromelia virus (EV), vaccinia virus, and Shope fibroma virus. The antibodies defined included ones reacting with each of the known major antigens of poxviruses, i.e. the common antigen of all poxviruses (probably NP antigen), the Orthopoxvirus-specific antigen (probably LS antigen), the hemagglutinin, the cell surface antigen, the common A-type inclusions in CPV and EV, and the antigen involved in neutralization.

L1 ANSWER 50 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:16661 HCAPLUS

DOCUMENT NUMBER: 106:16661

TITLE: Cross-reactivity among cowpox, ectromelia and vaccinia viruses with monoclonal antibodies recognizing distinct antigenic determinants in A-type inclusion bodies

AUTHOR(S): Kitamoto, N.; Tanimoto, S.; Hiroi, K.; Miyamoto, H.; **Wakamiya, N.**; Ueda, S.; Kato, S.

CORPORATE SOURCE: Dep. Microbiol., Wakayama Med. Coll., Wakayama, 640, Japan

SOURCE: Archives of Virology (1986), 91(3-4), 357-66  
CODEN: ARVIDF; ISSN: 0304-8608

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several monoclonal antibodies recognizing distinct antigenic determinants in A-type inclusion bodies (ATIB) induced by cowpox virus (CPV) were obtained to examine the cross-reactivity among various strains of poxviridae, comprising CPV, ectromelia virus (EV), vaccinia virus (VV), and Shope fibroma virus (SFV). The monoclonal antibodies were classified into at least 3 groups on the basis of the results of an immunofluorescence test and immunoblotting; i.e., strain-specific, CPV and EV-specific and orthopoxvirus (CPV, EV and VV)-specific antibodies. Differences were found between the antigenic determinants of ATIB of LB strains (LB red and LB white) and other strains (Amsterdam, 53, 58 and 60) of CPV and also between those of ATIB of CPV and EV. Interestingly, VV also produces the antigen analogous to that associated with ATIB in CPV- and EV-infected cells despite the absence of morphol. defined ATIB.

L1 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:618509 HCAPLUS

DOCUMENT NUMBER: 105:218509

TITLE: Adjuvant effect of FK 565 on vaccinia virus-induced tumor-specific immunity

AUTHOR(S): Mine, Y.; Watanabe, Y.; Wakai, Y.; Kikuchi, H.; Nakahara, K.; Aoki, H.; **Wakamiya, N.**; Ueda,

S.; Kato, S.  
 CORPORATE SOURCE: Cent. Res. Lab., Fujisawa Pharm. Co., Ltd., Osaka,  
 Japan  
 SOURCE: Recent Adv. Chemother., Proc. Int. Congr. Chemother.,  
 14th (1985), Volume Anticancer Sect. 2, 953-4.  
 Editor(s): Ishigami, Joji. Univ. Tokyo Press: Tokyo,  
 Japan.  
 CODEN: 55GNAX  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English

AB FK 565 (I) [79335-75-4] a low mol.-weight immunopotentiator, was studied on the adjuvant effect on vaccinia virus-induced tumor-specific immunity in an exptl. model in mice. I at 0.05 µg/kg enhanced host resistance to syngeneic X5563 plasmacytoma and MH134 hepatoma augmented by immunization with vaccinia virus-modified tumors. I also enhanced cytotoxic T-lymphocyte response to X5563 tumor cells and suppression of the growth of both tumors in Winn assay. These results suggest a clin. potential of I as a supporting drug for the immunotherapy of cancers.

L1 ANSWER 52 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:422682 HCAPLUS  
 DOCUMENT NUMBER: 105:22682  
 TITLE: Polypeptide analysis with monoclonal antibodies of A  
 type inclusion bodies induced by cowpox virus  
 AUTHOR(S): Kitamoto, N.; Tanimoto, S.; Hiroi, K.; Tanaka, T.;  
 Miyamoto, H.; **Wakamiya, N.**; Ikuta, K.; Ueda,  
 S.; Kato, S.  
 CORPORATE SOURCE: Dep. Microbiol., Wakayama Med. Coll., Wakayama, 640,  
 Japan  
 SOURCE: Archives of Virology (1986), 89(1-4), 15-28  
 CODEN: ARVIDF; ISSN: 0304-8608  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The antigen in A type inclusion bodies (ATIB) induced by cowpox virus (CPV) was examined by immunofluorescent staining with monoclonal antibodies and polypeptide anal. In the immunofluorescence test, these monoclonal antibodies reacted only with cytoplasmic inclusion bodies in cells infected with CPV. The fluorescence became detectable in the cells 6-9 h after infection with CPV. No fluorescence was detectable in cells infected with CPV in the presence of Ara C or in cells infected with other poxviruses, such as vaccinia virus (VV) or Shope fibroma virus (SFV). On Western blotting and immunopptn. followed by SDS-PAGE, only 1 component with a mol. weight of about 160,000 (160 K) was detected in CPV-infected cells. This 160 K polypeptide was first detectable 12 h after infection of cells with CPV, and was not detectable in infected cells in the presence of Ara C. The 160 K polypeptide was not detected in cells infected with VV or SFV, or in virions purified from CPV-, VV- or SFV-infected cells.

L1 ANSWER 53 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:400320 HCAPLUS  
 DOCUMENT NUMBER: 103:320  
 TITLE: Procainamide augments vaccination effect  
 AUTHOR(S): Aoki, Yasuaki; **Wakamiya, Nobutaka**; Ochi,  
 Takahiro; Ueda, Shigeharu; Kato, Shiro; Ono, Keiro  
 CORPORATE SOURCE: Med. Sch., Osaka Univ., Fukushima, 553, Japan  
 SOURCE: Biomedical Research (1985), 6(2), 87-91  
 CODEN: BRES55; ISSN: 0388-6107  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Procainamide (PA) [51-06-9], an antiarrhythmic agent, was recently found to be a specific inhibitor of suppressor T cells. The effects of PA and x-ray irradiation were studied on both plaque forming cells (PFC) and antibody

titer using sheep red blood cells and vaccinia virus as antigens. A single injection of PA (50 µg) augmented both PFC and antibody titer; the increase was more than twice that seen after x-ray irradiation. A single injection of higher doses and repeated PA injections did not further augment antibody production. These data indicate that PA could be introduced as the sensitizing step in some exptl. antibody-dependent anticancer regimens.

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? t s2/3 ab/1-86

>>>No matching display code(s) found in file(s): 345

2/AB/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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16046578 PMID: 12967638

Roles of calcineurin and calcium/calmodulin-dependent protein kinase II in pressure overload-induced cardiac hypertrophy.

Saito Tetsuya; Fukuzawa Jun; Osaki Junzo; Sakuragi Hitoshi; Yao Naoyuki; Haneda Takashi; Fujino Takayuki; **Wakamiya Nobutaka**; Kikuchi Kenjiro; Hasebe Naoyuki

First Department of Medicine, Asahikawa Medical College, 2-1-1-1 Midorigaoka-Higashi, Asahikawa 078 8510, Japan.

Journal of molecular and cellular cardiology (England) Sep 2003, 35 (9) p1153-60, ISSN 0022-2828 Journal Code: 0262322

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Calcineurin and calcium/calmodulin-dependent protein kinase (CaMK) II have been suggested to be the signaling molecules in cardiac hypertrophy. It was not known, however, whether these mechanisms are involved in cardiac hypertrophy induced by pressure overload without the influences of blood-derived humoral factors, such as angiotensin II. To elucidate the roles of calcineurin and CaMK II in this situation, we examined the effects of calcineurin and CaMK II inhibitors on pressure overload-induced expression of c-fos, an immediate-early gene, and protein synthesis using heart perfusion model. The hearts isolated from Sprague-Dawley rats were perfused according to the Langendorff technique, and then subjected to the acute pressure overload by raising the perfusion pressure. The activation of calcineurin was evaluated by its complex formation with calmodulin and by its R-II phosphopeptide dephosphorylation. CaMK II activation was evaluated by its autophosphorylation. Expression of c-fos mRNA and rates of protein synthesis were measured by northern blot analysis and by <sup>14</sup>C-phenylalanine incorporation, respectively. Acute pressure overload significantly increased calcineurin activity, CaMK II activity, c-fos expression and protein synthesis. Cyclosporin A and FK506, the calcineurin inhibitors, significantly inhibited the increases in both c-fos expression and protein synthesis. KN62, a CaMK II inhibitor, also significantly prevented the increase in protein synthesis, whereas it failed to affect the expression of c-fos. These results suggest that both calcineurin and CaMK II pathways are critical in the pressure overload-induced acceleration of protein synthesis, and that transcription of c-fos gene is regulated by calcineurin pathway but not by CaMK II pathway.

2/AB/2 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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15782581 PMID: 14978968

[Collectin family as a host defense lectin]

**Wakamiya Nobutaka**; Yoshida Itsuro; Ogasawara Masahiro; Fukuzawa Jun; Ohtani Katsuki; Koyama Satoshi

Department of Microbiology and Immunochemistry, Asahikawa Medical College, Asahikawa 078-8510, Japan.

Hokkaido igaku zasshi The Hokkaido journal of medical science (Japan)

Jan 2004, 79 (1) p3-7, ISSN 0367-6102 Journal Code: 17410290R

Document type: Journal Article

Languages: JAPANESE

Main Citation Owner: NLM

Record type: Completed

2/AB/3 (Item 3 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
 (c) format only 2004 The Dialog Corp. All rts. reserv.

12341600 PMID: 12709344

Differential mutation patterns in thymidine kinase and DNA polymerase genes of herpes simplex virus type 1 clones passaged in the presence of acyclovir or penciclovir.

Suzutani Tatsuo; Ishioka Ken; De Clercq Erik; Ishibashi Kei; Kaneko Hisatoshi; Kira Toshihiko; Hashimoto Koh-Ichi; Ogasawara Masahiro; Ohtani Katsuki; **Wakamiya Nobutaka**; Saijo Masayuki

Department of Microbiology, Fukushima Medical University, Fukushima, Tokyo, Japan. suzutani@fmu.ac.jp

Antimicrobial agents and chemotherapy (United States) May 2003, 47 (5) p1707-13, ISSN 0066-4804 Journal Code: 0315061

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

A total of 21 clones of acyclovir (ACV)-resistant (ACV(r)) herpes simplex virus type 1 (HSV-1) and 23 clones of penciclovir (PCV)-resistant (PCV(r)) HSV-1, emerging during serial passages in the presence of ACV or PCV, were isolated under conditions excluding contamination of resistant mutants in the starting virus culture, and their mutations in the thymidine kinase (TK) and DNA polymerase (DNA Pol) genes were analyzed comparatively. Mutations in the TK genes from ACV(r) mutants consisted of 50% single nucleotide substitutions and 50% frameshift mutations, while the corresponding figures for the PCV(r) mutants were 4 and 96%, respectively ( $P < 0.001$ ). Eight of the 21 ACV(r) clones, but none of the 23 PCV(r) clones, had mutations in DNA Pol. Only nucleotide substitution(s) could be detected in the DNA Pol gene, as the gene is essential for virus replication. Therefore, the results for the DNA Pol mutants are concordant with those for the TK mutants in that a single nucleotide substitution was commonly observed in the ACV(r), but not in the PCV(r), mutants. These results clearly point to differential mutation patterns between ACV(r) and PCV(r) HSV-1 clones.

2/AB/4 (Item 4 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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12253588 PMID: 12601552

Haplotype analysis of the human collectin placenta 1 (hCL-P1) gene.

Ohmori Hiroyuki; Makita Yoshio; Funamizu Makiko; Chiba Shin-ichi; Ohtani Katsuki; Suzuki Yasuhiko; **Wakamiya Nobutaka**; Hata Akira

Department of Public Health, Asahikawa Medical College, 2-1-1-1 Midorigaoka-higashi, Japan.

Journal of human genetics (Japan) 2003, 48 (2) p82-5, ISSN 1434-5161 Journal Code: 9808008

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Collectins are a family of C-type lectins found in vertebrates. These proteins have four regions, a relatively short N-terminal region, a collagen-like region, an alpha-helical coiled coil, and a carbohydrate recognition domain. Collectins are involved in host defense through their ability to bind carbohydrate antigens on microorganisms. Type A scavenger receptors are classical-type scavenger receptors that also have

collagen-like domains. We previously described a new scavenger receptor, collectin from placenta [collectin placenta 1 (CL-P1)]. CL-P1 is a type II membrane protein with all four regions. We found that CL-P1 can bind and phagocytize both bacteria and yeast. In addition to that, it reacts with oxidized low-density lipoprotein (LDL) but not with acetylated LDL. These results suggest that CL-P1 might play important roles in host defenses and/or atherosclerosis formation. One rational strategy to study the role of CL-P1 in these pathological conditions would be to perform a haplotype association study using human samples. As a first step for this strategy, we analyzed the haplotype structure of the CL-P1 gene. By sequencing the CL-P1 gene in ten Japanese volunteers, we identified five single-nucleotide polymorphisms (SNPs) with a minor allele frequency of at least 29%. To obtain SNPs in the 5'-upstream region of the gene, we screened a total of 20 SNPs described in the database and finally picked up one SNP for the present study. Thus, a total of six SNPs, one in the 5'-upstream region, two in intron 2, one in exon 5, and two in exon 6, were used to analyze the haplotype structure of the gene, with DNAs derived from 54 individuals (108 alleles). The analysis revealed that only two of six SNPs showed significant linkage disequilibrium ( $r^2 > 0.5$ ) with each other. This haplotype information may be useful in disease-association studies in which a contribution of the CL-P1 gene has been suspected, especially in immunological disturbance or atherosclerosis. Two SNPs in exon 6, both leading to amino acid substitutions, could be candidates for influencing disease susceptibility.

2/AB/5 (Item 5 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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12116853 PMID: 12450124.

Molecular cloning of mouse collectin liver 1.

Kawai Takao; Suzuki Yasuhiko; Eda Souji; Kase Tetsuo; Ohtani Katsuki; Sakai Yoshinori; Keshi Hiroyuki; Fukuoh Atsushi; Sakamoto Takashi; Nozaki Masami; Copeland Neal G; Jenkins Nancy A; **Wakamiya Nobutaka**

Division of Food Microbiology, Osaka Prefectural Institute of Public Health, 1-3-69 Nakamichi, Higashinari-ku, Osaka 537-0025, Japan.  
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Bioscience, biotechnology, and biochemistry (Japan) Oct 2002, 66 (10)  
 p2134-45, ISSN 0916-8451 Journal Code: 9205717

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Collectins are members of the superfamily of vertebrate C-type lectins that contain a collagen-like region, and are involved in first-line host defense. We earlier cloned and characterized a new kind of collectin, collectin liver 1 (CL-L1). In this study, we isolated the mouse homologue of CL-L1 encoding 277 amino acid residues; its deduced protein sequence was 88% identical with human CL-L1. Mouse CL-L1 mRNA was expressed mainly in the liver and stomach, but was found also in muscles, testes, intestines, and embryos. In mouse embryos, the level of CL-L1 mRNA gradually increased with embryonic age. In 16-day-old mouse embryos, CL-L1 mRNA was expressed in the liver, amnion, and visceral yolk sac. The mouse CL-L1 gene, Cl11 was found on chromosome 15 in a region syntenic with human chromosome 8q. CL-L1 was a highly conserved protein in mammals, birds, and fish.

2/AB/6 (Item 6 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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11904612 PMID: 11978785

Contribution of macrophage migration inhibitory factor to extracellular signal-regulated kinase activation by oxidative stress in cardiomyocytes.

Fukuzawa Jun; Nishihira Jun; Hasebe Naoyuki; Haneda Takashi; Osaki Junzo; Saito Tetsuya; Nomura Tomoaki; Fujino Takayuki; **Wakamiya Nobutaka**; Kikuchi Kenjiro

First Department of Medicine, Asahikawa Medical College, 2-1-1-1 Midorigaoka-Higashi, Japan. fukuzawa@asahikawa-med.ac.jp

Journal of biological chemistry (United States) Jul 12 2002, 277 (28) p24889-95, ISSN 0021-9258 Journal Code: 2985121R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

In response to oxidative stress, the pathogenesis of a number of cardiovascular events and several genes are stimulated by extracellular signal-regulated kinases (ERK1/2). Biphasic (early, 10 min; and delayed, 120 min) ERK1/2 activation by H(2)O(2), a reactive oxygen species, was observed in cultured neonatal rat cardiomyocytes. We investigated the hypothesis that the delayed activation of ERK1/2 depends on a factor secreted by oxidative stress (FSO). The delayed activation was inhibited by calphostin C, a protein kinase C inhibitor. Conditioned medium (CM) obtained from cells stimulated with H(2)O(2) induced rapid and monophasic ERK1/2 activation, which was not inhibited by calphostin C. In contrast, calphostin C-pretreated CM did not activate ERK1/2. Macrophage migration inhibitory factor (MIF) was one of the candidate FSOs activating ERK1/2. The existence of MIF in CM, the recombinant MIF-stimulated ERK1/2 rapid activation, and anti-MIF neutralizing antibody-induced inhibition of the delayed activation implied that MIF could be the FSO. Pretreatment of cardiomyocytes with a mitogen-activated protein kinase/ERK kinase (MEK) inhibitor did not suppress the MIF secretion, although it prevented the ERK1/2 activation by H(2)O(2). These results indicate that MIF is secreted from cardiomyocytes as a result of oxidative stress and activates ERK1/2 through a MEK1/2-dependent mechanism, although the secretion is not regulated by ERK1/2 but by protein kinase C.

2/AB/7 (Item 7 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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11804543 PMID: 11991814

Identification of human mannose binding lectin (MBL) recognition sites for novel inhibitory antibodies.

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Hybridoma and hybridomics (United States) Feb 2002, 21 (1) p25-36, ISSN 1536-8599 Journal Code: 101131136

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Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Mannose binding lectin (MBL) binding initiates activation of the lectin complement pathway. Recent studies from our laboratory have demonstrated that MBL-dependent complement activation mediates cellular injury following oxidative stress in vivo and in vitro. A panel of novel inhibitory monoclonal antibodies (MAbs) against MBL (e.g., MAb 3F8, 2A9, and hMBL1.2) has been developed that inhibit MBL binding and lectin pathway activation. Here, we further characterized the interactions of these MAbs and their Fab fragments to MBL. Whole MAbs or their Fab fragments bound to MBL with

relatively high affinity. Fab fragments of 3F8 were functionally effective in inhibiting MBL-dependent complement activation, however, steric hindrance of MAb 2A9 was essential for inhibition of MBL-dependent complement activation. We identified the hinge region, and residues EDCVLLL within the carbohydrate recognition domain of MBL as the recognition sites for MAb 3F8 and 2A9, respectively. The interaction of MABs (e.g., 3F8 and 2A9) to MBL was dependent on the conformation of their recognition sites. These findings demonstrate that MBL binding can be inhibited by at least two separate and independent mechanisms.

2/AB/8 (Item 8 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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11730447 PMID: 11906616

Mannose-binding lectin and the prognosis of fulminant hepatic failure caused by HBV infection.

Hakozaki Yukiya; Yoshida Makoto; Sekiyama Kazuhiko; Seike Eiji; Iwamoto Junichi; Mitani Keiji; Mine Masafumi; Morizane Toshio; Ohtani Katsuki; Suzuki Yasuhiko; **Wakamiya Nobutaka**

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Liver (Denmark) Feb 2002, 22 (1) p29-34, ISSN 0106-9543

Journal Code: 8200939

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

BACKGROUND/AIMS: The mannose-binding lectin (MBL) gene was reported to play an important role in determining the clinical outcome of persistent hepatitis B virus (HBV) infection. We investigated serum MBL concentrations and MBL gene mutations to determine whether they were related to the prognosis of patients with fulminant hepatic failure (FHF) caused by HBV infection. METHODS: We investigated serum MBL concentrations and MBL gene mutations in 43 HBV-infected Japanese patients with FHF and 260 HBsAg-negative healthy controls. Serum MBL concentrations were measured by an enzyme-linked immunosorbent assay, and mutations in the MBL gene were analysed by nested PCR and direct DNA sequencing. RESULTS: Only a mutation in codon 54 of the MBL gene was found. The frequency of this mutation in nonsurvivors (40%, 8/20) was higher than in survivors (13%, 3/23), and the difference was slightly significant ( $p = 0.043$ ). The H allele frequency in survivors (70.5%, 31/44) was higher than in nonsurvivors (39.5%, 15/38) ( $p = 0.0048$ ). Because of these factors the mean serum MBL concentration in survivors, 1.61 microg/ml (range 0.3-3.86), was significantly higher than in nonsurvivors, 0.79 microg/ml (range 0.04-1.51) ( $p < 0.0001$ ). The likelihood ratio for nonsurvival was 0 for over 2.0 microg/ml, 0.67 for 1.0-2.0 microg/ml, and 2.24 for 0-1.0 microg/ml. CONCLUSIONS: The mutation in codon 54 of the MBL gene tended to be higher in nonsurvivors than in survivors. The H allele frequency (high producing allele in H/Y) in survivors was higher than that in nonsurvivors. High levels of serum MBL correlated with the survival of patients with FHF due to HBV infection. Serum MBL may be useful as a predictive factor for the survival of patients with FHF caused by HBV.

2/AB/9 (Item 1 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0013687572 BIOSIS NO.: 200200281083

Methods for detecting anti-viral activity of calcium-dependent lectins

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JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1257 (1): Apr. 2, 2002 2002  
MEDIUM: e-file  
PATENT NUMBER: US 6365342 PATENT DATE GRANTED: April 02, 2002 20020402  
PATENT CLASSIFICATION: 435-5 PATENT ASSIGNEE: Fuso Pharmaceutical  
Industries, Ltd., Osaka, Japan PATENT COUNTRY: USA  
ISSN: 0098-1133  
DOCUMENT TYPE: Patent  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: A recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a protein-constituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs; and a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

2/AB/10 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0013640484 BIOSIS NO.: 200200233995  
The membrane-type collectin CL-P1 is a scavenger receptor on vascular endothelial cells  
AUTHOR: Ohtani Katsuki; Suzuki Yasuhiko; Eda Souji; Kawai Takao; Kase Tetsuo; Keshi Hiroyuki; Sakai Yoshinori; Fukuoh Atsushi; Sakamoto Takashi ; Itabe Hiroyuki; Suzutani Tatsuo; Ogasawara Masahiro; Yoshida Itsuro;  
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AUTHOR ADDRESS: Department of Microbiology, Asahikawa Medical College, Midorigaoka-Higashi, Asahikawa, 078-8510, Japan\*\*Japan  
JOURNAL: Journal of Biological Chemistry 276 (47): p44222-44228 November 23, 2001 2001  
MEDIUM: print  
ISSN: 0021-9258  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: Collectins are a family of C-type lectins that have collagen-like sequences and carbohydrate recognition domains (CRD). They are involved in host defense through their ability to bind to carbohydrate antigens of microorganisms. The scavenger receptors type A and MARCO are classical type scavenger receptors that have internal collagen-like domains. Here we describe a new scavenger receptor that is a membrane-type collectin from placenta (collectin placenta 1 (CL-P1)), which has a typical collectin collagen-like domain and a CRD. The cDNA has an insert of about 2.2 kilobases coding for a protein containing 742 amino acid residues. The deduced amino acid sequence shows that CL-P1 is a type II membrane protein, has a coiled-coil region, a collagen-like domain, and a CRD. It resembles type A scavenger receptors because the scavenger receptor cysteine-rich domain is replaced by a CRD. Northern analyses, reverse transcription-polymerase chain reaction, and immunohistochemistry show that CL-P1 is expressed in vascular endothelial cells but not in macrophages. By immunoblotting and flow cytometry CL-P1 appears to be a

membrane glycoprotein of about 140 kDa in human umbilical vein or arterial endothelial cells, placental membrane extracts, and CL-P1 transfected Chinese hamster ovary cells. We found that CL-P1 can bind and phagocytose not only bacteria (*Escherichia coli* and *Staphylococcus aureus*) but also yeast (*Saccharomyces cerevisiae*). Furthermore, it reacts with oxidized low density lipoprotein (OxLDL) but not with acetylated LDL (AcLDL). These binding activities are inhibited by polyanionic ligands (polyinosinic acid, polyguanylic acid, dextran sulfate) and OxLDL but not by polycationic ligands (polyadenylic acid or polycytidylic acid), LDL, or AcLDL. These results indicate that CL-P1 might play important roles in host defenses that are different from those of soluble collectins in innate immunity.

2/AB/11 (Item 3 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0013153442 BIOSIS NO.: 200100325281  
 Recombinant expression of human mannan-binding lectin  
 AUTHOR: Vorup-Jensen Thomas (Reprint); Sorensen Esben S; Jensen Uffe B; Schwaeble Wilhelm; Kawasaki Toshisuke; Ma Yong; Uemura Kazuhide; **Wakamiya Nobutaka**; Suzuki Yasuhiko; Jensen Thomas G; Takahashi Kazue; Ezekowitz R Alan B; Thiel Steffen; Jensenius Jens Chr  
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 JOURNAL: International Immunopharmacology 1 (4): p677-687 April, 2001 2001  
 MEDIUM: print  
 ISSN: 1567-5769  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English

ABSTRACT: Mannan-binding lectin (MBL) constitutes an important part of the innate immune defence by effecting the deposition of complement on microbial surfaces. MBL deficiency is among the most common primary immunodeficiencies and is associated with recurrent infections and symptoms of poor immune complex clearance. Plasma-derived MBL has been used in reconstitution therapy but concerns over viral contamination and production capacity point to recombinant MBL (rMBL) as a future source of this protein for clinical use. Natural human MBL is an oligomer of up to 18 identical polypeptide chains. The synthesis of rMBL has been accomplished in several mammalian cell lines, however, the recombinant protein differed structurally from natural MBL. In this, study we compare rMBL produced in myeloma cells, Chinese hamster ovary (CHO) cells, human hepatocytes, and human embryonic kidney (HEK) cells. We report that rMBL structurally and functionally similar to natural MBL can be obtained through synthesis in the human embryonic kidney cells followed by selective carbohydrate affinity chromatography.

2/AB/12 (Item 4 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0012222244 BIOSIS NO.: 199900481904  
 Critical role of conserved amino acid residues in complementarity determining regions for antibody specificity and polypeptide-chain assembly  
 AUTHOR: Kinoshita Takeshi; Suzuki Yasuhiko; Ida Sohji; Naito Akihiro; **Wakamiya Nobutaka**; Kozono Haruo; Azuma Takachika (Reprint)  
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JOURNAL: Research Communications in Biochemistry and Cell and Molecular  
Biology 2 (3-4): p275-288 1998 1998

MEDIUM: print

ISSN: 1087-111X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Fab fragments of a wild type or mutants of an anti-(4-hydroxy-3-nitrophenyl)acetyl mAb, B2, were expressed on the surface of a filamentous phage in order to examine the role of conserved amino acid residues at positions 32, 50, and 60 in complementarity determining regions. These had been predicted previously as specificity-determining residues (Taketani et al., 1995, Molec. Immunol., 32:983). Phages expressing mutant Fabs with replacement of a single amino acid at these positions in complementarity determining regions of the heavy-chain V region showed a large to complete loss of ability to bind haptens. In addition, substitution of Tyr60 hindered formation of Fab, suggesting that this amino acid residue is critical for the interaction between V domains in heavy and light chains. Thus, the amino acid residues conserved in somatic mutation of complementarity determining regions are important in determining Ab-specificity as well as in inter-V domain interactions.

2/AB/13 (Item 5 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0012003316 BIOSIS NO.: 199900262976

Molecular cloning of a novel human collectin from liver (CL-L1)

AUTHOR: Ohtani Katsuki; Suzuki Yasuhiko; Eda Souji; Kawai Takao; Kase

Tetsuo; Yamazaki Hiroshi; Shimada Tsutomu; Keshi Hiroyuki; Sakai

Yoshinori; Fukuoh Atsushi; Sakamoto Takashi; **Wakamiya Nobutaka**

(Reprint

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JOURNAL: Journal of Biological Chemistry 274 (19): p13681-13689 May 7,

1999 1999

MEDIUM: print

ISSN: 0021-9258

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Collectins are a C-lectin family with collagen-like sequences and carbohydrate recognition domains. These proteins can bind to carbohydrate antigens of microorganisms and inhibit their infection by direct neutralization and agglutination, the activation of complement through the lectin pathway, and opsonization by collectin receptors. Here we report the cloning of a cDNA encoding human collectin from liver (CL-L1 (collectin liver 1)) that has typical collectin structural characteristics, consisting of an N-terminal cysteine-rich domain, a collagen-like domain, a neck domain, and a carbohydrate recognition domain. The cDNA has an insert of 831 base pairs coding for a protein of 277 amino acid residues. The deduced amino acid sequence shows that this collectin has a unique repeat of four lysine residues in its C-terminal area. Northern blot, Western blot, and reverse transcription-polymerase chain reaction analyses showed that CL-L1 is present mainly in liver as a cytosolic protein and at low levels in placenta. More sensitive analyses by reverse transcription-polymerase chain reactions showed that most

tissues (except skeletal muscle) have CL-L1 mRNA. Zoo-blot analysis indicated that CL-L1 is limited to mammals and birds. A chromosomal localization study indicated that the CL-L1 gene localizes to chromosome 8q23-q24.1, different from chromosome 10 of other human collectin genes. Expression studies of fusion proteins lacking the collagen and N-terminal domains produced in *Escherichia coli* affirmed that CL-L1 binds mannose weakly. CL-L1 and recombinant CL-L1 fusion proteins do not bind to mannan columns. Analysis of the phylogenetic tree of CL-L1 and other collectins indicated that CL-L1 belongs to a fourth subfamily of collectins following the mannan-binding protein, surfactant protein A, and surfactant protein D subfamilies including bovine conglutinin and collectin-43 (CL-43). These findings indicate that CL-L1 may be involved in different biological functions.

2/AB/14 (Item 6 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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0011804128 BIOSIS NO.: 199900063788  
High-level and effective production of human mannan-binding lectin (MBL) in Chinese hamster ovary (CHO) cells  
AUTHOR: Ohtani Katsuki; Suzuki Yasuhiko; Eda Souji; Kawai Takao; Kase Tetsuo; Keshi Hiroyuki; Sakai Yoshinori; Yamamoto Satoshi; Sakamoto Takashi; **Wakamiya Nobutaka** (Reprint)  
AUTHOR ADDRESS: Dep. Viral Infectious, Res. Inst. Microbial Diseases, Osaka Univ., 3-1 Yamadaoka, Suita, Osaka 565, Japan\*\*Japan  
JOURNAL: Journal of Immunological Methods 222 (1-2): p135-144 Jan. 1, 1999  
MEDIUM: print  
ISSN: 0022-1759  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: We have developed a high-expression system of recombinant human mannan-binding lectin (MBL) with CHO cells. Geneticin-resistant transformants harboring human MBL cDNA in the expression vector pNOW/CMV-A were screened by immunoblot analysis for secretion of recombinant MBL. Cloning and selection by both geneticin and methotrexate resulted in the production of recombinant MBL to a final concentration of 128.8 µg/ml in media after four days of culture. SDS-PAGE and gel-filtration analyses showed that recombinant MBL is characterized by two lower-order oligomeric structures (apparent molecular weights: 1150 kDa and 300 kDa) compared to native MBL (apparent molecular weight: 1300 kDa). The recombinant human MBL has both sugar-binding and complement activation activity and, like native MBL, can inhibit hemagglutination of influenza A virus. Lectin blots with recombinant MBL indicate that it can bind such microorganisms as HIV and influenza virus suggesting that it might inhibit their infection of hosts. This high-level expression of human MBL with the full range of biological activity will be useful for studies on the immunological role of MBL in humans.

2/AB/15 (Item 7 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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0011679403 BIOSIS NO.: 199800473650  
Characterization of truncated human mannan-binding protein (MBP) expressed in *Escherichia coli*  
AUTHOR: Eda Souji; Suzuki Yasuhiko; Kawai Takao; Ohtani Katsuki; Kase Tetsuo; Sakamoto Takashi; **Wakamiya Nobutaka** (Reprint)

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JOURNAL: Bioscience Biotechnology and Biochemistry 62 (7): p1326-1331  
July, 1998 1998  
MEDIUM: print  
ISSN: 0916-8451  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: Mannan-binding protein (MBP) is a calcium-dependent mammalian serum lectin important in first-line host defense. MBP belongs to the collectin family, which is characterized by an NH2-terminal cysteine-rich domain, a collagen-like domain, a neck domain, and a carbohydrate recognition domain (CRD). We have expressed a recombinant human MBP, consisting of the short collagen region (two repeats of Gly-Xaa-Yaa amino acid sequences), the neck domain, and the CRD, in Escherichia coli. The truncated MBP was capable of forming trimers by association of the neck domain and could bind sugar with a specificity similar to that of the native form. Results of hemagglutination inhibition (HI) assay of influenza A virus showed that the truncated MBP inhibited hemagglutination less strongly, although the native MBP induced the HI phenomenon. These results suggest that an oligomeric structure is an advantage for MBP to have full biological activity against influenza A virus.

2/AB/16 (Item 8 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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0011428431 BIOSIS NO.: 199800222678  
Molecular and biological characterization of rabbit mannan-binding protein (MBP)  
AUTHOR: Kawai Takao; Suzuki Yasuhiko; Eda Souji; Ohtani Katsuki; Kase Tetsuo; Sakamoto Takashi; Uemura Hidetoshi; **Wakamiya Nobutaka**  
(Reprint)  
AUTHOR ADDRESS: Dep. Viral Infections, Res. Inst. Microbial Dis., Osaka Univ., Suita, Osaka 565, Japan\*\*Japan  
JOURNAL: Glycobiology 8 (3): p237-244 March, 1998 1998  
MEDIUM: print  
ISSN: 0959-6658  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: Mannan-binding protein (MBP) is a member of the collectin family of protein. There are two types of MBP, MBP-A and MBP-C, which were found in rodent (rats and mice), rhesus monkey, and cynomolgus monkey, while chimpanzee and human have only one MBP. It was considered that the loss of one MBP gene occurred during hominoid evolution. In this article two rabbit MBP, a liver and serum MBP, were characterized biologically and genetically. Analyses by SDS-PAGE under reduced condition and their amino acid sequences of both MBPs showed that they have a same molecular weight of 32 kDa and their amino acid sequences were identical. A serum MBP has a higher ability to activate complement than does a liver MBP; however, a liver MBP inhibits hemagglutination by influenza virus as strongly as a serum MBP does. cDNA clones encoding the rabbit MBP were isolated from a rabbit cDNA liver library using whole cDNA of mouse MBP-C as a probe. The cDNA carried an insert of 744 bp coding for a protein of 247 acid residues with a signal peptide of 22 residues. The deduced amino acid sequence of the cDNA was identical to that of amino acid sequences of the 32 kDa proteins determined here. Northern blot analysis showed that mRNA

transcripts of about 0.9 and 3.0 kb were expressed only in the liver. The analysis of the phylogenetic tree of rabbit and bovine MBPs and other collectins indicates that the loss of MBP gene occurred not only during hominoid evolution but also at some points after the separation of birds and mammals.

2/AB/17 (Item 9 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0011147764 BIOSIS NO.: 199799781824  
Characterization of recombinant bovine conglutinin expressed in a mammalian cell  
AUTHOR: Suzuki Yasuhiko; Eda Souji; Kawai Takao; Ohtani Katsuki; Kase Tetsuo; Sakamoto Takashi; **Wakamiya Nobutaka** (Reprint  
AUTHOR ADDRESS: Dep. Viral Infections, Res. Inst. Microbial Diseases, Osaka Univ., Suita, Osaka 565, Japan\*\*Japan  
JOURNAL: Biochemical and Biophysical Research Communications 238 (3): p 856-860 1997 1997  
ISSN: 0006-291X  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: We describe here the successful expression of recombinant bovine conglutinin in CHO cells as well as its physical and biological characteristics. Geneticin-resistant transformants harboring bovine conglutinin cDNA in the expression vector pNOW/CMV-A were screened by Western blot analysis for secretion into media of recombinant conglutinin. A four-day amplification of the transgene with increasing concentrations of methotrexate resulted in a dose-dependent increase in the production of recombinant conglutinin to a final concentration of 18.6  $\mu$ -g/ml of media. Recombinant conglutinin purified from this media by affinity column chromatography on mannan-agarose had a migration pattern similar to that of native conglutinin on polyacrylamide gel electrophoresis under reducing, nonreducing, and native conditions. The recombinant conglutinin exhibited sugar binding, conglutination, hemagglutination inhibition, and neutralization of influenza A virus, activities engaged in by the native conglutinin. This is the first report describing a high level of expression of a serum cruciform collectin with the full range of biological activity.

2/AB/18 (Item 10 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0010908881 BIOSIS NO.: 199799542941  
Structure of a truncated human surfactant protein D is less effective in agglutinating bacteria than the native structure and fails to inhibit haemagglutination by influenza A virus  
AUTHOR: Eda Souji; Suzuki Yasuhiko; Kawai Takao; Ohtani Katsuki; Kase Tetsuo; Fujinaga Yousuke; Sakamoto Takashi; Kurimura Takashi; **Wakamiya Nobutaka** (Reprint  
AUTHOR ADDRESS: Dep. Virol., Osaka Prefectural Inst. Public Health, 1-3-69 Nakamichi, Higashinari, Osaka 537, Japan\*\*Japan  
JOURNAL: Biochemical Journal 323 (2): p393-399 1997 1997  
ISSN: 0264-6021  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

**ABSTRACT:** Surfactant protein D (SP-D) is a lung-specific protein that is synthesized and secreted by lung epithelial cells and is believed to play an important role in lung host defence. This protein belongs to the C-type lectin family, which is characterized by an N-terminal cysteine-rich domain, a collagen-like domain, a neck domain and a carbohydrate recognition domain (CRD). To elucidate the biological actions of this animal lectin against such pathogens as micro-organisms, the biological activities of a recombinant partial SP-D lacking a collagen-like domain were examined. A recombinant human SP-D, consisting of a short collagen region (two repeats of Gly-Xaa-Yaa amino acid sequences), the neck domain and the CRD, was expressed in *Escherichia coli*. The recombinant SP-D was purified on a nickel column and then on a maltose-agarose column. This protein can form a trimeric structure owing to the neck domain and exhibits sugar-binding activity and specificity similar to those of native human SP-D. The recombinant SP-D caused dose-dependent and calcium-dependent agglutination of *E. coli* Y1088. The agglutination titre (the concentration required to achieve a 50% decrease in light transmission by agglutination) of recombinant SP-D was approx. 6-fold that of native SP-D. As for conglutination, the recombinant trimeric conglutinin required 8-16-fold higher concentrations than the native counterpart. In haemagglutination inhibition (HI) of influenza A virus, although native and recombinant conglutinin showed similar levels of HI activity, the recombinant SP-D was unable to inhibit haemagglutination, even at a concentration approx. 120-fold that of the native SP-D. The lectin precipitation and lectin blot assays showed that the truncated SP-D could bind to influenza A virus as well as native SP-D did. These results indicate that the agglutination activity of trimeric collections can be largely retained, and furthermore that the oligomeric structure with several hands at opposite sites can enhance agglutination activity. The difference in HI activity against influenza A virus between native and recombinant SP-D suggests that SP-D uses a different mechanism from that of conglutinin to inhibit viral haemagglutination.

2/AB/19 (Item 11 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0010821442 BIOSIS NO.: 199799455502  
 Cloning and characterization of cDNA encoding bovine mannan-binding protein  
 AUTHOR: Kawai Takao; Suzuki Yasuhiko; Eda Souji; Ohtani Katsuki; Kase  
 Tetsuo; Fujinaga Yousuke; Sakamoto Takashi; Kurimura Takashi; **Wakamiya  
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 JOURNAL: Gene (Amsterdam) 186 (2): p161-165 1997 1997  
 ISSN: 0378-1119  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English

**ABSTRACT:** To identify the bovine mannan-binding protein (MBP), a search for the cDNA homologue of human MBP was carried out. cDNA clones encoding bovine MBP were isolated from a bovine liver cDNA library using a cDNA fragment encoding a short collagen region, neck domain and carbohydrate recognition domain of human MBP. The cDNA carried an insert of 747 bp encoding a protein of 249 amino acid (aa) residues with a signal peptide of 19 aa. The mannan-binding protein fraction of bovine serum that eluted with 100 mM mannose from a mannan-Sepharose column was analyzed under reducing conditions by SDS-PAGE. The major band of 33 kDa obtained reacted with anti-human MBP rabbit serum. The partial aa sequence of the purified 33-kDa protein was identical to the aa sequence deduced from the obtained cDNA. Results of the passive hemolysis experiment using sheep

erythrocytes coated with yeast mannan suggest that this MBP has the ability to activate complement. Northern blot analysis showed a 1.8-kb mRNA that was expressed only in the liver. Based on results of genomic analysis, this bovine MBP is likely to be a homologue of human MBP and to also have homology to rat and mouse MBP-C which are localized in liver cells rather than to rat and mouse MBP-A found in serum. Alignments of bovine collectins show that bovine MBP cannot be included among the other bovine collectins, such as bovine SP-D, conglutinin and CL-43. Finally, these genomic and biological analyses indicate that the cDNA obtained here encoded a bovine serum MBP.

2/AB/20 (Item 12 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0010747044 BIOSIS NO.: 199799381104

Detection of proviruses and viral RNA in the early stages of feline immunodeficiency virus infection in cats: A possible model of the early stage of HIV infection

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Iwa Nobuzo; Kurimura Takashi

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JOURNAL: Experimental Animals (Tokyo) 46 (1): p31-39 1997 1997  
ISSN: 1341-1357

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Feline immunodeficiency virus (FIV) infection in cats has been reported to be a useful animal model for human AIDS studies, especially in the early stages of infection. We examined the temporal changes in provirus detection in peripheral blood mononuclear cells (PBMC) and the distribution of FIV-DNA and RNA in feline tissues by the polymerase chain reaction at 10, 35, 70 days after intravenous inoculation of FIV. Viral DNA in the PBMC was detected three to four weeks after infection and its fluctuation was demonstrated for the first time. Ten days after infection, before seroconversion, proviruses were detected only in the mesenteric lymph nodes and intestines. At 35 and 70 days after infection, after seroconversion, proviruses were detected in most lymphoid organs and the salivary glands, but the expression of FIV-RNA was limited to the thymus at 70 days after infection. These results show that FIV-RNA is transcribed from proviral DNA exclusively in the thymus at this stage. We suggest that the quantitative changes in detectable proviruses in the PBMC depend on the relation between the decrease in infected cells caused by cytolytic T lymphocytes and/or apoptosis and their increase caused by the release of a new supply of lymphocytes from the thymus.

2/AB/21 (Item 13 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0010376759 BIOSIS NO.: 199699010819

Characterization of microsomal cytochrome P450 enzymes involved in the oxidation of xenobiotic chemicals in human fetal livers and adult lungs

AUTHOR: Shimada Tsutomu (Reprint); Yamazaki Hiroshi; Mimura Mayumi;  
**Wakamiya Nobutaka**; Ueng Yune-Fang; Guengerich F Peter; Inui  
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JOURNAL: Drug Metabolism and Disposition 24 (5): p515-522 1996 1996

ISSN: 0090-9556  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

**ABSTRACT:** Levels and catalytic activities of cytochrome P450 (P450) enzymes involved in the oxidation of drugs and carcinogens were determined in human adult lungs and fetal livers and compared with those in microsomes from adult livers. P450s immunoreactive with anti-human P4501A1 and anti-human P4503A antibodies were detected in fetal liver microsomes by immunoblotting analysis, and P450s related to P4501A1, 2A6, 2C9, 2E1, and 3A4 were determined in adult lung microsomes; all of these P450 enzymes were detected in much higher amounts in adult liver microsomes except that P4501A2 was only the 1A subfamily of P450 found in adult livers. Drug oxidation activities with the substrates ethoxyresorufin, coumarin, 7-ethoxycoumarin, bufuralol, and testosterone were determined in these microsomes, and we found that none of the activities were higher in microsomes of adult lungs and fetal livers than in adult livers. Activation of procarcinogens to reactive metabolites that induce umu gene expression in *Salmonella typhimurium* TA1535/pSK1002 or NM2009 was also examined and it was found that activities with (+)- and (-)-enantiomers of 7,8-dihydroxy-7,8-dihydrobenzo(a)pyrene were higher in fetal liver microsomes than adult lung or liver microsomes. The adult liver and lung activities for these two procarcinogens were similar on the microsomal protein contents despite the facts that P450 contents are higher in liver than lung microsomes.  $\alpha$ -Naphthoflavone, a known inhibitor of P4501A-related activities, did not affect these procarcinogen activation in fetal liver microsomes. Fetal liver microsomes catalyzed activation of aflatoxin B-1 and sterigmatocystin, two procarcinogens known to be activated by P4503A4/7 in humans, although activation of carcinogenic arylamines that are good substrates for P4501A2 was much lower in microsomes of fetal livers and adult lungs than in adult livers. These results suggest that in human fetal livers at least two P450 enzymes, a form of P450 that is immunoreactive to P4501A1 and P4503A7, are actually expressed and these enzymes are suggested as being involved in the activation of the (+)- and (-)-enantiomers of 7,8-dihydroxy-7,8-dihydrobenzo(a)pyrene and the carcinogenic mycotoxins, respectively. The exact nature of the former enzyme in fetal livers is unknown. In adult human lungs, several P450 enzymes are expressed, although the precise roles of these enzymes in the oxidation of xenobiotics were not determined due to the low level of expression of these P450s.

2/AB/22 (Item 14 from file: 5)  
DIALOG(R) File 5:Biosis Previews(R)  
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0010366771 BIOSIS NO.: 199699000831

Recombinant bovine conglutinin, lacking the N-terminal and collagenous domains, has less conglutination activity but is able to inhibit haemagglutination by influenza A virus

**AUTHOR:** Eda Souji; Suzuki Yasuhiko; Kase Tetsuo; Kawai Takao; Ohtani Katsuki; Sakamoto Takashi; Kurimura Takashi; **Wakamiya Nobutaka**  
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**JOURNAL:** Biochemical Journal 316 (1): p43-48 1996,1996

ISSN: 0264-6021

DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

**ABSTRACT:** Conglutinin is a bovine serum protein which was first described as a vertebrate lectin. This protein belongs to the family of C-type lectins. These lectins are composed of four characteristic domains: (1) an N-terminal cysteine-rich domain, (2) a collagen-like domain, (3) a neck domain and (4) a carbohydrate recognition domain (CRD). Recently lectins have been shown to function as immunoglobulin-independent defence molecules due to a complement-mediated mechanism or opsonization. Our previous study showed that bovine conglutinin can inhibit haemagglutination by influenza A viruses and act by directly neutralizing them due to its lectin properties. In order to elucidate the biological role of the collagen-like domain, a recombinant partial conglutinin lacking this collagen-like domain was produced in an *Escherichia coli* system and its biological activities were examined. A 497 bp sequence, consisting of a short collagen region (two repeats of G-X-Y amino acid sequences), the neck domain, and the CRD of conglutinin cDNA, was amplified by the reverse-transcriptase PCR technique. The cDNA was transferred to a bacterial expression vector system (pRSET-A) and stable transfectants with a high level of conglutinin production were obtained. SDS/PAGE and Western blotting analyses showed a recombinant fusion protein of 27 kDa. Results of a cross-linking study and gel-filtration assay indicated that the recombinant conglutinin can form a trimeric structure and that it has sugar binding activity and specificity similar to that of native conglutinin. The recombinant conglutinin was also found to inhibit haemagglutination caused by influenza A virus as well as to possess less conglutination activity. These results suggest that in order for conglutinin to inhibit haemagglutination caused by the influenza virus, as well as to have sugar binding activity or to form trimers, it does not require the N-terminal and collagenous domains; however, they are essential for full conglutination activity.

2/AB/23 (Item 15 from file: 5)  
 DIALOG(R)File 5: Biosis Previews(R)  
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0009984737 BIOSIS NO.: 199598452570  
 Expression of the T antigen on a T-lymphoid cell line, SupT1  
 AUTHOR: Nakada Hiroshi; Inoue Mizue; Tanaka Nobuhiro; **Wakamiya Nobutaka**; Yamashina Ikuro (Reprint)  
 AUTHOR ADDRESS: Dep. Biotechnol., Fac. Eng., Kyoto Sangyo Univ., Motoyama, Kamigamo, Kita-ku, Kyoto 603, Japan\*\*Japan  
 JOURNAL: Glycoconjugate Journal 12 (3): p356-359 1995 1995  
 ISSN: 0282-0080  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English

**ABSTRACT:** We have measured glycosyltransferase activities of SupT1 cells, a T-lymphoid cell line shown to react with autoantibodies in the sera of many HIV patients. Since considerable alpha-N-acetylgalactosaminyl-transferase and beta-1,3 galactosyltransferase activities were found in SupT1 cells, at least the O-glycan core 1 structure can probably be synthesized. FACS analysis using an anti-T monoclonal antibody showed expression of the T antigen (Gal beta-1-3 GalNAc). Glycoproteins with the T antigen were isolated by immunoprecipitation with the anti-T antibody from a SupT1 cell lysate labelled metabolically with 3H-glucosamine and then analysed by SDS-PAGE. It was revealed that the precipitate contained a glycoprotein with a molecular weight corresponding to that of leukosialin. O-glycans were prepared from the immunoprecipitate by alkaline-borohydride treatment and then fractionated on Bio-Gel P-2, GalNAcOH and Gal-GalNAcOH being identified inter alia. These results suggest that an anti-T antibody may be included in the autoantibodies found in HIV-1 infected individuals.

2/AB/24 (Item 16 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0008819943 BIOSIS NO.: 199395122209

Anti-tumor activity of ceramides and glycosphingolipids in a murine tumor system

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Kurimura Takashi; Naiki Masaharu; **Wakamiya Nobutaka** (Reprint

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JOURNAL: International Journal of Cancer 53 (4): p645-650 1993

ISSN: 0020-7136

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: The anti-tumor activity of 7 sphingolipids, 2 ceramides and 5 glycosphingolipids against the syngeneic murine ascitic tumors MH134 and MM102 in C3H mice was examined. Five of these compounds showed anti-tumor activity against the tumours, ceramide type-IV (Cer-IV) having the highest activity without cytotoxic or cytostatic activity. These results indicate that the fatty acid in ceramide and sugar chains binding to it affect the anti-tumor activity in vivo. The anti-tumor activity of Cer-IV depended on the time of treatment. Mice treated with Cer-IV one day after tumor implantation showed the highest rate of survival. The cured mice were resistant to rechallenge with the same tumor (MH134 fwdarw MH134, MM102 fwdarw MM102) but not with a heterologous tumor (MH134 fwdarw X5563, MM102 fwdarw X5563), indicating that the effect of Cer-IV may be due to in vivo induction of specific immunity. Studies with various antibodies demonstrated that the anti-tumor effect of Cer-IV was inhibited by all the antibodies tested (L3T4, Lyt-2, and Thy-1,2 T cells, macrophages, and TNF-alpha) in the induction phase (before Cer-IV administration) and by the antibodies of L3T4 and TNF-alpha in the effector phase (after Cer-IV administration). Therefore, the anti-tumor effect of Cer-IV in this system depended on the host immune response rather than on its direct cytotoxic and/or cytostatic action.

2/AB/25 (Item 17 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0008806087 BIOSIS NO.: 199395108353

Cloning and sequencing of a cDNA coding for bovine conglutinin

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JOURNAL: Biochemical and Biophysical Research Communications 191 (2): p  
335-342 1993

ISSN: 0006-291X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A 912 bp bovine cDNA fragment encoding bovine conglutinin was amplified by the RT-PCR technique. cDNA clones encoding the bovine conglutinin were isolated from a bovine liver cDNA library using a specific probe obtained from the PCR product. These cDNAs carry an insert of 1113 bp coding for a protein of 371 amino acid residues with a signal

peptide of 20 residues. The deduced amino acid sequence of cDNA agrees with that determined by conventional amino acid sequence analysis. Two polyadenylation signal sequences were detected in the DNA sequence downstream of the 3' end of the gene. Southern blot analysis of total bovine genomic DNA indicated that there is only one copy of the gene encoding bovine conglutinin. Northern blot analysis of bovine tissues showed that conglutinin mRNA of about 1.5 kb is expressed in the liver and also slightly in the lung.

2/AB/26 (Item 18 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0008725629 BIOSIS NO.: 199395027895

A prospective study on correlation between the decrease in anti-P17 antibody level and progression to AIDS in asymptomatic carriers of HIV

AUTHOR: Choudhury Ahmed Murtaza; Yamada Osamu; **Wakamiya Nobutaka**;

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JOURNAL: Microbiology and Immunology 36 (8): p833-840 1992

ISSN: 0385-5600

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: As the majority of human immunodeficiency virus (HIV) carriers are in asymptomatic stage for a long period of time, it is important to investigate the factors or surrogate markers for conversion from asymptomatic to symptomatic stage. Our study is designed to evaluate the relationship among virus isolation rate, anti-p17 antibody status and progression to AIDS. We studied anti-p17 antibody status along with virus isolation in 56 asymptomatic carriers and 46 AIDS cases. Progression to AIDS was markedly associated with high rate of virus isolation and loss of anti-p17 antibody. In order to know the meaning of loss of anti-p17 antibody during the clinical course, 15 anti-p17 antibody positive and 16 anti-p17 antibody negative cases were followed up prospectively for the development of AIDS. None of the anti-p17 antibody positive cases developed AIDS while 6 out of 15 anti-p17 negative cases developed AIDS during observation period (P lt 0.05). Progress to AIDS was associated with loss of anti-p17 antibody. Identification of cases losing anti-p17 antibody in peripheral blood during asymptomatic period may help, identify a high-risk group who are in need of chemoprophylaxis. Moreover, study of anti-p17 antibody may be helpful in designing vaccine in the future if it works as a neutralizing antibody to HIV in vivo.

2/AB/27 (Item 19 from file: 5)  
 DIALOG(R)File 5:Biosis Previews(R)  
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0008714408 BIOSIS NO.: 199395016674

Isolation and characterization of conglutinin as an influenza A virus inhibitor

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JOURNAL: Biochemical and Biophysical Research Communications 187 (3): p 1270-1278 1992

ISSN: 0006-291X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract  
 LANGUAGE: English

**ABSTRACT:** Normal horse and guinea pig sera contain alpha-2-macroglobulin which inhibits the infectivity and hemagglutinating activity of influenza A viruses of the H2 and H3 subtypes. On the other hand, normal bovine serum contains a component termed beta inhibitor that inhibits the infectivity and hemagglutinating activity of influenza A viruses of the H1 and H3 subtypes. To investigate the nature of the beta inhibitor of influenza A virus, we purified the conglutinin and examined its characteristics. First, we found a high correlation between the hemagglutination inhibition(HI) titer and conglutinin titer in several bovine sera( $r = 0.906$ ,  $p < 0.005$ ). The HI of bovine serum was mainly dependent on conglutinin because the HI activity was abrogated by N-acetylglucosamine but not by D-mannose. The conglutinin, purified from bovine serum, had neutralizing-activity as well as HI activity on influenza A viruses of the H1 and H3 subtypes. The HI activity of conglutinin was heat stable(56 degree C, 30 min),  $Ca^{++}$ -dependent, and resistant to both neuraminidase and periodate treatments. The HI activity of purified conglutinin was blocked by N-acetylglucosamine but not by D-mannose. The conglutinin was bound to hemagglutinin which had high mannose and complex sugar chains and its binding was inhibited by N-acetylglucosamine and dependent on divalent cations. These data indicate that the beta-like inhibitor activity of bovine serum is mainly dependent on conglutinin which inhibits hemagglutination and neutralizes the virus infectivity by its binding to a carbohydrate site at the HA.

2/AB/28 (Item 1 from file: 94)  
 DIALOG(R)File 94:JICST-EPlus  
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05766999 JICST ACCESSION NUMBER: 04A0409101 FILE SEGMENT: PreJICST-E  
 ASSOCIATION BETWEEN ANTI-RNP ANTIBODIES AND MANNOSE BINDING LECTIN  
 TSUTSUMI AKITO (1); GOTO DAISUKE (1); MATSUMOTO ISAO (1); ITO SATOSHI (1);  
 SUMIDA TAKAYUKI (1); TAKAHASHI REIKO (2); OTANI KATSUKI (2);  
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 Kongosei Ketsugo Soshikibyo ni kansuru Kenkyu Heisei 15 Nendo Sokatsu,  
 Buntan Kenkyu Hokokusho Kongosei Ketsugo Soshikibyo no Byotai, Chiryo  
 to Kanren suru Identeiki Inshi, Jiko Kotai no Kenkyu, 2004, PAGE.32-34  
 JOURNAL NUMBER: N20040890Y  
 LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
 DOCUMENT TYPE: Journal  
 MEDIA TYPE: Printed Publication

2/AB/29 (Item 2 from file: 94)  
 DIALOG(R)File 94:JICST-EPlus  
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05680935 JICST ACCESSION NUMBER: 03A0871147 FILE SEGMENT: JICST-E  
 Clarification of the biophylaxis system in blood vessel using the lectin  
 function and application to drug creation.  
**WAKAMIYA NOBUTAKA** (1); HONDA MITSUO (2); SUZUKI SADAHIKO (3); ITABE  
 HIROYUKI (4); KISHI YUICHIRO (5)  
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 ; (4) Teikyo Univ., Fac. of Pharm. Sci.; (5) Fuso Pharm. Ind., Ltd., Res. &  
 Dev. Center  
 Soyakuto Hyuman Saiensu Kenkyu Juten Kenkyu Hokokusho Heisei 14 Nendo  
 Dai2 Bun'ya Soyaku no tameno Seitai Kino Kaiseki ni kansuru Kenkyu,  
 2003, PAGE.72-76

JOURNAL NUMBER: N20032591J  
UNIVERSAL DECIMAL CLASSIFICATION: 612.017  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

ABSTRACT: Cloning of collectin CL-P1 and homologue gene was finished, and the eternal expression cell was established. Gene knockout of mouse, zebrafish and zenobass were begun. Analysis of the phylaxis mechanism of malaria and AIDS virus and the oxidation LDL was successfully performed.

2/AB/30 (Item 3 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05505375 JICST ACCESSION NUMBER: 03A0463738 FILE SEGMENT: JICST-E  
POLYMORPHISMS OF THE MANNOSE BINDING LECTIN GENE IN PATIENTS POSITIVE FOR ANTI-RNP ANTIBODIES

TSUTSUMI AKITO (1); TAKAHASHI REIKO (1); GOTO DAISUKE (1); MATSUMOTO ISAO (1); MURATA HIDEYUKI (1); SUMIDA TAKAYUKI (1); OTANI TATSUKI (2);  
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Biseibutsugaku  
Kongosei Ketsugo Soshikibyō ni kansuru Kenkyū. Heisei 14 Nendo Sokatsu,  
Buntan Kenkyū Hokokusho. Kongosei Ketsugo Soshikibyō no Byotai, Chiryō  
to Kanren suru Identeiki Inshi, Jiko Kotai no Kenkyū, 2003, PAGE.38-40,  
FIG.2, TBL.1, REF.2

JOURNAL NUMBER: N20030978W  
UNIVERSAL DECIMAL CLASSIFICATION: 575.116.4 577.112.016  
616-021+616-056.4

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

ABSTRACT: The MBL polymorphism was investigated in the anti-RNP antibody-positive patients and autoimmune patients. For this reason, the genomic DNA was prepared from the patient blood, and the polymorphism of codon 54 of the MBL gene was decided by the PCR-RFLP method. Among 54 patients, there were 29 normal-type homozygotes(AA), 16 heterozygotes(AB), and 3 minority-type homozygotes(BB); the frequency of the B allele was 20.4%.The blood AB concentration was significantly lower in the AB patients than that in the AA patients, and was further lowered in the BB patients. Of 18 patients with the B allele, the infectious disease requiring hospitalization was recognized in 6 patients during the course; this tended to be a little abundant as compared with 7 out of 33 persons without the B allele. The clear relation is not observed between visceral lesions such as pulmonary hypertension and the MBL gene polymorphism.

2/AB/31 (Item 4 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05298836 JICST ACCESSION NUMBER: 02A0863223 FILE SEGMENT: JICST-E  
Elucidation of biophylaxis system using the lectin function in the blood vessel and application to the wound medicine.

**WAKAMIYA NOBUTAKA** (1); SUZUKI SADAHIKO (2); ITABE HIROYUKI (3); HONDA MITSUO (4); KISHI YUICHIRO (5)

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Infectious Diseases, JPN; (5) Fuso Pharm. Ind., Ltd., Res. & Dev. Center  
Soyakuto Hyuman Saiensu Kenkyu Juten Kenkyu Hokokusho. Heisei 13 Nendo.  
Dai2 Bun'ya. Soyaku no tameno Seitai Kino Kaiseki ni kansuru Kenkyu,  
2002, PAGE.74-83, FIG.8, REF.20  
JOURNAL NUMBER: N20022131A  
UNIVERSAL DECIMAL CLASSIFICATION: 612.017 577.112.016  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication  
ABSTRACT: It focused on the capillary endothelium, and the research of the biophylaxis system by lectin was advanced. Gene cloning of new lectin CL-P1 and genetic analysis experiment with it were almost completed in the first year, and establishment of the eternal expression cell for the functional analysis and mouse genomic gene analysis for knockout mouse advanced. And, the phylaxis action on malaria and AIDS virus was also discovered in the functional analysis.

2/AB/32 (Item 5 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05095723 JICST ACCESSION NUMBER: 02A0150185 FILE SEGMENT: JICST-E  
Development of the viral infection prevention medicine by animal serum lectin ( human science promotion foundation S ).  
**WAKAMIYA NOBUTAKA** (1); KISHI YUICHIRO (2); HONDA MITSUO (3)  
(1) Asahikawa Med. Coll.; (2) Fuso Pharm. Ind., Ltd., Res. & Dev. Center ; (3) National Inst. Infectious Diseases, AIDS Res. Center, JPN  
Soyakuto Hyuman Saiensu Kenkyu Juten Kenkyu Hokokusho. Heisei 12 Nendo.  
Dai5 Bun'ya. Kenko Hoji Zoshin, Yobo Iyakuhiin no Kaihatsu ni kansuru Kenkyu, 2001, PAGE.87-96, FIG.10, TBL.2, REF.10  
JOURNAL NUMBER: N20020046R  
UNIVERSAL DECIMAL CLASSIFICATION: 577.112.016 578.72/.76  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication  
ABSTRACT: The monoclonal antibody of mannan binding protein (MBP) was made, and the recognition site of the complement activation antibody was examined. The position which related to the lectin dependence complement activation activity interference of the MBP was clarified. The influenza virus infection experiment was carried out in the system of mouse and hamster, and the physiological role of the MBP was examined. Animal experiment model in the decision of the MBP phylaxis effect was able to be made. The following were examined : MBP change in the stress in the human and gene polymorphism of the MBP in various diseases. The effect of the recombinant MBP was examined in HIV type C type stock in which the neutralizing antibody was difficult to work. It was clarified that the MBP caused the neutralization in the HIV stock in which the neutralizing antibody does not demonstrate the effect.

2/AB/33 (Item 6 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05081338 JICST ACCESSION NUMBER: 02A0135117 FILE SEGMENT: JICST-E  
On infection protective effect of the animal serum lectin in the Hansen's disease ( human science promotion foundation S ).  
**WAKAMIYA NOBUTAKA** (1); WISNU I M (2); KISHI YUICHIRO (3); HONDA MITSUO (4); SUZUKI SADAHIKO (5)

(1) Asahikawa Med. Coll.; (2) Indoneshiadai I Hifubyoseibyoka; (3) Fuso Pharm. Ind., Ltd., Res. & Dev. Center; (4) National Inst. Infectious Diseases, AIDS Res. Center, JPN; (5) Osaka Prefect. Inst. of Public Health

Soyakuto Hyuman Saiensu Kenkyu. Heisei 12 Nendo. Kokusai Kyodo Kenkyu Jigyo Kenkyu Hokokusho, 2001, PAGE.78-85, FIG.5, TBL.1, REF.10

JOURNAL NUMBER: N20012800E

UNIVERSAL DECIMAL CLASSIFICATION: 616.9 577.112.016

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

ABSTRACT: It became clear that the serum MBP concentration showed the high value by the measurement in the Hansen's disease patient in respect of serum MBP ( animal serum lectin ) concentration of the MHansen's disease patient of Japan and Indonesia. Animal serum lectin reported until now and relevance to the adid-fast organism were analyzed in order to clarify the mechanism in which the high value of such serum MBP promotes the adid-fast organism infection. Then, MBP concentration measurements were carried out of the various diseases that the compromised host was suspected, and MBP high value was recognized in the hemodialysis patient. It was guessed that there were high infectiousness and relevance in the hemodialysis patient on this fact.

2/AB/34 (Item 7 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04548036 JICST ACCESSION NUMBER: 00A0362068 FILE SEGMENT: JICST-E

Innate Defense Lectin. Collectin Family as Host-defense Lectins.

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Tanpakushitsu Kakusan Koso(Protein, Nucleic Acid and Enzyme), 2000,

VOL.45,NO.5, PAGE.655-663, FIG.6, REF.47

JOURNAL NUMBER: F0325AAB ISSN NO: 0039-9450 CODEN: TAKKA

UNIVERSAL DECIMAL CLASSIFICATION: 612.017 575.116

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Review article

MEDIA TYPE: Printed Publication

ABSTRACT: Collectins belong to a subfamily of C type lectins, and have the collagen-like structure and the sugar recognition domain in their intramolecular structures. Among the collectins, mannose binding lectin(MBL) found as a secretory type in serum, conglutinin(BKg), collectin 43(CL-43), surfactant protein A(SP-A), surfactant protein D(SP-D), and collectin liver1(CL-L1) have been reported so far. This paper describes the structural characteristics, and biological properties of these collectins.

2/AB/35 (Item 8 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04520633 JICST ACCESSION NUMBER: 00A0010391 FILE SEGMENT: JICST-E

The relation between fulminant hepatitis B and mannose-binding protein valuevmutation.

**HAKOZAKI YUKINARI** (1); **MITANI KEIJI** (2); **KOBARI SHIN'ICHI** (2); **FUJIOKA**

**TAKAHIRO** (2); **OBA KEN'ICHI** (2); **SHIRAHAMA TATSUOKI** (2); **WAKAMIYA**

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(1) Jieitai Cent. Hosp.; (2) Res. Inst. for Microb. Dis., Osaka University; (3)

Showa University, Fujigaoka Hospital  
Koseisho Tokutei Shikkan Nanchisei no Kan Shikkan Chosa Kenkyuhan. Heisei  
10 Nendo Kenkyu Hokokusho, 1999, PAGE.113-118, FIG.3, TBL.4, REF.5  
JOURNAL NUMBER: N19993093K  
UNIVERSAL DECIMAL CLASSIFICATION: 616.3 616.9 575.116  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication

2/AB/36 (Item 9 from file: 94)  
DIALOG(R)File 94:JICST-Eplus  
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03946473 JICST ACCESSION NUMBER: 99A0142960 FILE SEGMENT: JICST-E  
Role of sugar chain in infectious disease. and its application for medical  
treatment. ( Human Science Promotion Foundation ).  
HONDA MITSUO (1); KITAMURA MASARU (1); SUZUKI EIKO (1); TAKIMOTO KAZUHIRO  
(1); **WAKAMIYA NOBUTAKA** (2); SUZUKI YASUO (3); TAKATSUKI AKIRA (4)  
; INOKUCHI HITOKAZU (5); FUJITA SHUJI (6)  
(1) Kansenshoken; (2) Res. Inst. for Microb. Dis., Osaka Univ.; (3) Univ.  
of Shizuoka, Sch. of Pharm. Sci.; (4) Riken Inst. of Phys. and Chem.  
Res.; (5) Seikagaku Kogyo Co., Ltd., Tokyo Res. Inst.; (6) Tokyo Res.  
Inst., Nissin Food Products Co., Ltd.  
Kanmin Kyodo Purojekuto Kenkyu Hokoku. Heisei 9 Nendo. Dai2Bun'ya. Nyu  
Tekunoroji to shitenos Tosa Kogaku no Kakuritsu to Iryov Iyaku Bun'ya  
eno Oyo, 1998, PAGE.44-50, FIG.1, TBL.1, REF.10  
JOURNAL NUMBER: N19990013H  
UNIVERSAL DECIMAL CLASSIFICATION: 577.114.016 615.281.8  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/37 (Item 10 from file: 94)  
DIALOG(R)File 94:JICST-Eplus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03635807 JICST ACCESSION NUMBER: 98A0613753 FILE SEGMENT: JICST-E  
Problems to be noted for HIV isolation from the clinical materials.(  
Sponsor : Ministry of Health and Welfare ).  
KURIMURA TAKASHI (1); TSUCHIE HIDEAKI (1); **WAKAMIYA NOBUTAKA** (1);  
TOCHIKURA AKIKO (1); SAKAMOTO TAKASHI (1); SASAO FUYOKO (1); FUJINAGA  
YOSUKE (1); HOSEIN MOHAZZARU (1); DETORIO MABI (1)  
(1) Res. Inst. for Microb. Dis., Osaka Univ.  
HIV Kansensha Hassho Yobov Chiryo ni kansuru Kenkyuhan. Heisei 8 Nendo  
Kenkyu Hokokusho, 1997, PAGE.109-114, FIG.4, REF.3  
JOURNAL NUMBER: N19981407U  
UNIVERSAL DECIMAL CLASSIFICATION: 616-078  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/38 (Item 11 from file: 94)  
DIALOG(R)File 94:JICST-Eplus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03463496 JICST ACCESSION NUMBER: 97A0934344 FILE SEGMENT: JICST-E  
Research of expression mechanisms of sugar chain antigen

(Hanganutziu-Deicher) including N - glycolylneuramic acid and the biological significance.

**WAKAMIYA NOBUTAKA (1)**

(1) Res. Inst. for Microb. Dis., Osaka Univ.  
Sankyo Seimei Kagaku Kenkyu Shinko Zaidan Kenkyu Hokokushu, 1997, VOL.10,  
PAGE.210-220, FIG.8, REF.12  
JOURNAL NUMBER: L2409AAO  
UNIVERSAL DECIMAL CLASSIFICATION: 616-006-09 577.18  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Commentary  
MEDIA TYPE: Printed Publication

2/AB/39 (Item 12 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03256566 JICST ACCESSION NUMBER: 98A0103915 FILE SEGMENT: PreJICST-E  
Large expression of human mannan binding protein in an eukaryotic cell and its biological properties.

OTANI KATSUKI (1); SUZUKI SADAHIKO (1); EDA SOSHI (1); KAWAI TAKAO (1);  
KASE TETSUO (1); SAKAMOTO TAKASHI (2); **WAKAMIYA NOBUTAKA (2)**;  
UEMURA HIDETOSHI (3)

(1) Osaka Prefect. Inst. of Public Health; (2) Osaka Univ.; (3) Fuso Pharm. Ind., Ltd.

Nippon Men'eki Gakkai Sokai, Gakujutsu Shukai Kiroku, 1997, VOL.27,  
PAGE.182

JOURNAL NUMBER: Z0383BBV

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

MEDIA TYPE: Printed Publication

2/AB/40 (Item 13 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03172190 JICST ACCESSION NUMBER: 97A0447655 FILE SEGMENT: JICST-E  
Anti-viral activity by collectins.

**WAKAMIYA NOBUTAKA (1)**; SUZUKI YASUHIKO (2)

(1) Res. Inst. for Microb. Dis., Osaka Univ.; (2) Osaka Prefect. Inst. of Public Health

Rinsho Men'eki(Clinical Immunology), 1997, VOL.29,NO.4, PAGE.508-513,  
FIG.3, TBL.2, REF.16

JOURNAL NUMBER: Z0528BAR ISSN NO: 0386-9695

UNIVERSAL DECIMAL CLASSIFICATION: 615.281.8

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

2/AB/41 (Item 14 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03062274 JICST ACCESSION NUMBER: 96A0954983 FILE SEGMENT: JICST-E

Elucidation of crisis mechanism of sugar chain involved disease. Role of sugar chain in infectious disease and its application to medical treatment. (Human Science Promotion Foundation S)

NAIKI MASA HARU (1); MATSUMOTO MIYAKO (1); SUZUKI EIKO (1); **WAKAMIYA**

**NOBUTAKA (2)**; SUZUKI YASUO (3); KIMURA HIROHISA (4); MIZUOCHI TSUGIO

(5); TAKATSUKI AKIRA (6); INOKUCHI JIN'ICHI (7)  
(1) National Inst. of Health; (2) Res. Inst. for Microb. Dis., Osaka Univ.  
; (3) Univ. of Shizuoka, Sch. of Pharm. Sci.; (4) Inst. of Life Sci., Soka  
Univ.; (5) Tokai Univ., Sch. of Eng.; (6) Riken Inst. of Phys. and  
Chem. Res.; (7) Seikagaku Kogyo Co., Ltd.  
Kanmin Kyodo Purojekuto Kenkyu Hokoku. Heisei 7 Nendo. Dai2 Bun'ya. Nyu  
Tekunoroji to shitenos Tosa Kogaku no Kakuritsu to Iryo, Iyaku Bun'ya  
eno Oyo, 1996, PAGE.47-53, FIG.1, REF.16  
JOURNAL NUMBER: N19962647T  
UNIVERSAL DECIMAL CLASSIFICATION: 615.281.8 615.33.015.1  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/42 (Item 15 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03024404 JICST ACCESSION NUMBER: 96A0748221 FILE SEGMENT: JICST-E  
Results of HIV separation from peripheral blood of HIV-1 infected persons.  
( Ministry of Health and Welfare S )  
TSUCHIE HIDEAKI (1); TOCHIKURA AKIKO (1); **WAKAMIYA NOBUTAKA** (1);  
KURIMURA TAKASHI (1)  
(1) Res. Inst. for Microb. Dis., Osaka Univ.  
HIV Kansensha Hassho Yobo, Chiryo ni kansuru Kenkyuhan. Heisei 7 Nendo  
Kenkyu Hokokusho, 1996, PAGE.113-114, FIG.1, TBL.1  
JOURNAL NUMBER: N19962040Q  
UNIVERSAL DECIMAL CLASSIFICATION: 616.9-07  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication  
ABSTRACT: Carriers of HIV-1(A) positive in a peripheral blood were summed  
up from 1987 to 1995, and the results were examined. The test for  
detection of A was performed on about 300 blood samples every year.  
Almost all samples were from Japanese hemophilia patients infected with  
A. The results of the test were correlated with the progress of the  
disease with A infection.

2/AB/43 (Item 16 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

03006614 JICST ACCESSION NUMBER: 96A0695194 FILE SEGMENT: JICST-E  
Detection from clinical specimen of AZT resistant HIV-1.  
TOCHIKURA AKIKO (1); SAKAMOTO TAKASHI (1); KAGEYAMA SEIJI (1); **WAKAMIYA  
NOBUTAKA** (1); TSUCHIE HIDEAKI (1); KURIMURA TAKASHI (1)  
(1) Res. Inst. for Microb. Dis., Osaka University  
Minophagen Med Rev, 1996, VOL.41, NO.2, PAGE.88-90, FIG.1, TBL.2, REF.2  
JOURNAL NUMBER: X0211AAX ISSN NO: 0388-4783  
UNIVERSAL DECIMAL CLASSIFICATION: 616-078 615.281.8.03  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication

2/AB/44 (Item 17 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02865992 JICST ACCESSION NUMBER: 97A0253241 FILE SEGMENT: PreJICST-E  
Purification and cDNA cloning of the cattle MBP.  
OYA KATSUSHIRO (1); SUZUKI SADAHIKO (1); KAWAI TAKAO (1); EDA SHUJI (1);  
KASE TETSUO (1); SAKAMOTO TAKASHI (2); KURIMURA TAKASHI (2);  
**WAKAMIYA NOBUTAKA** (2); UEMURA HIDETOSHI (3)  
(1) Osaka Prefect. Inst. of Public Health; (2) Osaka Univ.; (3) Fuso Pharm.  
Ind., Ltd.  
Nippon Bunshi Seibutsu Gakkai Nenkai Puroguramu, Koen Yoshishu, 1996,  
VOL.19th, PAGE.391  
JOURNAL NUMBER: L1278AAP  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Conference Proceeding  
MEDIA TYPE: Printed Publication

2/AB/45 (Item 18 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02865991 JICST ACCESSION NUMBER: 97A0253240 FILE SEGMENT: PreJICST-E  
Purification and cDNA cloning of the rabbit MBP.  
KAWAI TAKAO (1); SUZUKI SADAHIKO (1); EDA SHUJI (1); KASE TETSUO (1); OYA  
KATSUSHIRO (1); SAKAMOTO TAKASHI (2); KURIMURA TAKASHI (2); **WAKAMIYA  
NOBUTAKA** (2); UEMURA HIDETOSHI (3)  
(1) Osaka Prefect. Inst. of Public Health; (2) Osaka Univ.; (3) Fuso Pharm.  
Ind., Ltd.  
Nippon Bunshi Seibutsu Gakkai Nenkai Puroguramu, Koen Yoshishu, 1996,  
VOL.19th, PAGE.390  
JOURNAL NUMBER: L1278AAP  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Conference Proceeding  
MEDIA TYPE: Printed Publication

2/AB/46 (Item 19 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02864440 JICST ACCESSION NUMBER: 97A0235319 FILE SEGMENT: PreJICST-E  
Large quantities of expression of CHO cell of recombinant bovine  
conglutinin.  
SUZUKI SADAHIKO (1); EDA SHUJI (1); KAWAI TAKAO (1); KASE TETSUO (1); OYA  
KATSUSHIRO (1); SAKAMOTO TAKASHI (2); KURIMURA TAKASHI (2); **WAKAMIYA  
NOBUTAKA** (2)  
(1) Osaka Prefect. Inst. of Public Health; (2) Osaka Univ.  
Nippon Bunshi Seibutsu Gakkai Nenkai Puroguramu, Koen Yoshishu, 1996,  
VOL.19th, PAGE.390  
JOURNAL NUMBER: L1278AAP  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Conference Proceeding  
MEDIA TYPE: Printed Publication

2/AB/47 (Item 20 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02834104 JICST ACCESSION NUMBER: 97A0020810 FILE SEGMENT: PreJICST-E  
Inhibition of the influenza virus infection by animal serum lectin and its  
significance.  
KASE TETSUO (1); SUZUKI SADAHIKO (1); EDA SOJI (1); KAWAI TAKAO (1); OYA  
KATSUKI (2); SAKAMOTO TAKASHI (2); KURIMURA TAKASHI (2); **WAKAMIYA**

**NOBUTAKA (2)**

(1) Osaka Prefect. Inst. of Public Health; (2) Osaka Univ.  
Nippon Men'eki Gakkai Sokai, Gakujutsu Shukai Kiroku, 1996, VOL.26,  
PAGE.427

JOURNAL NUMBER: Z0383BBV

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

MEDIA TYPE: Printed Publication

2/AB/48 (Item 21 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02832581 JICST ACCESSION NUMBER: 97A0001456 FILE SEGMENT: PreJICST-E  
cDNA cloning of rabbit MBP and its biological property.

KAWAI TAKAO (1); SUZUKI SADAHIKO (1); EDA SOJI (1); KASE TETSUO (1); OTANI  
KATSUKI (1); SAKAMOTO TAKASHI (2); KURIMURA TAKASHI (2); **WAKAMIYA**

**NOBUTAKA (2)**

(1) Osaka Prefect. Inst. of Public Health; (2) Res. Inst. for Microb. Dis.,  
Osaka Univ.

Nippon Men'eki Gakkai Sokai, Gakujutsu Shukai Kiroku, 1996, VOL.26,  
PAGE.266

JOURNAL NUMBER: Z0383BBV

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

MEDIA TYPE: Printed Publication

2/AB/49 (Item 22 from file: 94)

DIALOG(R)File 94:JICST-EPlus

(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02719057 JICST ACCESSION NUMBER: 96A0221054 FILE SEGMENT: JICST-E  
Development of diagnostic technique by sugar chain utilization. Basic  
research on the function of ganglioside and application to medical  
treatments of it. ( Sponsor : Human Science Promotion Foundation ).

UCHITAKA MASA HARU (1); SAITO MANABU (1); FUJITA SHUJI (2); INOKUCHI  
JIN'ICHI (3); **WAKAMIYA NOBUTAKA** (4); SUZUKI YASUO (5); SUZUKI  
AKEMI (6); IRIMURA TATSURO (7); YAMAGATA TATSUYA (8)

(1) National Inst. of Health; (2) MECT Corp.; (3) Seikagaku Kogyo Co., Ltd.  
; (4) Res. Inst. for Microb. Dis., Osaka Univ.; (5) Univ. of Shizuoka, Sch.  
of Pharm. Sci.; (6) Tokyo Metrop. Inst. of Med. Sci.; (7) Univ. of  
Tokyo, Fac. of Pharm. Sci.; (8) Tokyo Inst. of Technol. Fac. of Biosci.  
and Biotechnol.

Kanmin Kyodo Purojekuto Kenkyu Hokoku. Heisei 6 Nendo. Dai2 Bun'ya. Nyu  
Tekunoroji to shitenos Tosa Kogaku no Kakuritsu to Iyaku, Iryo Bun'ya  
eno Oyo, 1995, PAGE.62-68, REF.28

JOURNAL NUMBER: N19952462D

UNIVERSAL DECIMAL CLASSIFICATION: 577.115.016

LANGUAGE: Japanese

COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

2/AB/50 (Item 23 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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02552700 JICST ACCESSION NUMBER: 95A0635123 FILE SEGMENT: JICST-E  
Neutralizing Activity of Human Antibody Targeting HIV Matrix Protein, p17.  
KAGEYAMA SEIJI (1); **WAKAMIYA NOBUTAKA** (1); TSUCHIE HIDEAKI (1); UEDA

SHIGEHARU (1); ISMAIL S (1); GAO M (1); KATSUMOTO TETSUO (2); TANIGUCHI  
KATSUMI (3); TOYA HARUMASA (4)  
(1) Res. Inst. for Microb. Dis., Osaka Univ.; (2) Tottori Univ., Fac. of  
Med.; (3) Eiken Chem. Co., Ltd.; (4) Sawai Pharm. Co., Ltd.  
Rinsho to Uirusu (Clinical Virology), 1995, VOL.23, NO.3, PAGE.155-159,  
FIG.3, REF.14  
JOURNAL NUMBER: Z0316BAI ISSN NO: 0303-8092  
UNIVERSAL DECIMAL CLASSIFICATION: 577.18.01  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/51 (Item 24 from file: 94)  
DIALOG(R) File 94:JICST-EPlus  
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02534725 JICST ACCESSION NUMBER: 95A0433866 FILE SEGMENT: JICST-E  
Research on the conformer division of HIV-1 and HIV-2.  
KAGEYAMA SEIJI (1); TOCHIKURA AKIKO (1); TSUCHIE HIDEAKI (1); SHIN M T A  
(1); MATSUNDA S M (1); **WAKAMIYA NOBUTAKA** (1); KURIMURA KEI (1);  
MANIARU J K (2); SAPURU D G (2)  
(1) Res. Inst. for Microb. Dis., Osaka Univ.; (2) Gurandovmedikaruvkarejji  
Minophagen Med Rev, 1995, VOL.40, NO.2, PAGE.91-93, TBL.3  
JOURNAL NUMBER: X0211AAX ISSN NO: 0388-4783  
UNIVERSAL DECIMAL CLASSIFICATION: 578.3+578.8 616-078  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication

2/AB/52 (Item 25 from file: 94)  
DIALOG(R) File 94:JICST-EPlus  
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01204929 JICST ACCESSION NUMBER: 90A0818510 FILE SEGMENT: JICST-E  
Research on of adsorptive tumor cell vaccine of vaccinia virus inactivated  
by ultraviolet rays.  
KATO SHIRO (1); ITO TETSUYA (1); OKABAYASHI MASAFUMI (1); MARU MORIMASA  
(1); **WAKAMIYA NOBUTAKA** (1)  
(1) Osaka Univ., Res. Inst. for Microbial Diseases  
Gan Chiryo no Ayumi (Advances in Cancer Treatment), 1987, VOL.7, PAGE.47-52  
, FIG.1, TBL.5, REF.6  
JOURNAL NUMBER: L0679AAP  
UNIVERSAL DECIMAL CLASSIFICATION: 616-006-08-092.4  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/53 (Item 26 from file: 94)  
DIALOG(R) File 94:JICST-EPlus  
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00360255 JICST ACCESSION NUMBER: 87A0086266 FILE SEGMENT: JICST-E  
Vaccine effect-enhancing action of procaineamide.  
AOKI YASUAKI (1); OCHI TAKAHIRO (1); HAMADA HIDEKI (1); ONO YOSHIRO (1);  
**WAKAMIYA NOBUTAKA** (2); UEDA SHIGEHARU (2); KATO SHIRO (2)  
(1) Osakadai I; (2) Osakadai Biseibutsubyoken  
Seikei Geka Kiso Kagaku (Orthopedic Research Science), 1986, VOL.13,

PAGE.718-721, FIG.2, TBL.2, REF.6  
JOURNAL NUMBER: Y0737AAN  
UNIVERSAL DECIMAL CLASSIFICATION: 615.37 615.221/.224  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Short Communication  
MEDIA TYPE: Printed Publication

2/AB/54 (Item 27 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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00353357 JICST ACCESSION NUMBER: 87A0061981 FILE SEGMENT: JICST-E  
Augmented induction of tumor-specific resistance by priming with  
UV-inactivated vaccinia virus and subsequent immunization with  
UV-inactivated virus-adsorbed syngeneic tumor cells.

**WAKAMIYA NOBUTAKA** (1)  
(1) Osakadai Biseibutsubyoken  
Osaka Daigaku Igaku Zasshi(Medical Journal of Osaka University Japanese  
Edition), 1986, VOL.38,NO.4, PAGE.97-103, FIG.4, TBL.3, REF.13  
JOURNAL NUMBER: G0933AAV ISSN NO: 0369-710X CODEN: ODIZA  
UNIVERSAL DECIMAL CLASSIFICATION: 616-006-08-092.4 578.72/.76  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

2/AB/55 (Item 28 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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00194255 JICST ACCESSION NUMBER: 86A0113341 FILE SEGMENT: JICST-E  
New trends in development of vaccines. Immunological control of  
transplantable tumor within strains of mice by use of vaccinia virus.  
**KATO SHIRO** (1); **WAKAMIYA NOBUTAKA** (1); **UEDA SHIGEHARU** (1)  
(1) Osaka Univ., Res. Inst. for Microbial Diseases  
Rinsho to Uirusu(Clinical Virology), 1985, VOL.13,NO.3, PAGE.298-305,  
FIG.2, TBL.6, REF.26  
JOURNAL NUMBER: Z0316BAI ISSN NO: 0303-8092  
UNIVERSAL DECIMAL CLASSIFICATION: 578.72/.76 616-006-09  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Review article  
MEDIA TYPE: Printed Publication

2/AB/56 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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15681840 PASCAL No.: 02-0388763  
Identification of human mannose binding lectin (MBL) recognition sites  
for novel inhibitory antibodies  
**HUI ZHAO**; **WAKAMIYA Nobutaka**; **SUZUKI Yasuhiko**; **HAMONKO Matthew T**;  
**STAHL Gregory L**  
Center for Experimental Therapeutics & Reperfusion Injury, Department of  
Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's  
Hospital, Harvard Medical School, Boston, MA 02115, United States; Dept.  
Microbiology and Immunochemistry, Asahikawa Medical College, Midorigaoka  
Higashi, Asahikawa 078-8510, Japan; Department of Pathology, Osaka  
Prefectural Institute of Public Health, Higashinari, Osaka 537-0025, Japan

Journal: Hybridoma, 2002, 21 (1) 25-36

Language: English

Mannose binding lectin (MBL) binding initiates activation of the lectin complement pathway. Recent studies from our laboratory have demonstrated that MBL-dependent complement activation mediates cellular injury following oxidative stress in vivo and in vitro. A panel of novel inhibitory monoclonal antibodies (MAbs) against MBL (e.g., MAb 3F8, 2A9, and hMBL1.2) has been developed that inhibit MBL binding and lectin pathway activation. Here, we further characterized the interactions of these MAbs and their Fab fragments to MBL. Whole MAbs or their Fab fragments bound to MBL with relatively high affinity. Fab fragments of 3F8 were functionally effective in inhibiting MBL-dependent complement activation, however, steric hindrance of MAb 2A9 was essential for inhibition of MBL-dependent complement activation. We identified the hinge region, and residues EDCVLLL within the carbohydrate recognition domain of MBL as the recognition sites for MAb 3F8 and 2A9, respectively. The interaction of MAbs (e.g., 3F8 and 2A9) to MBL was dependent on the conformation of their recognition sites. These findings demonstrate that MBL binding can be inhibited by at least two separate and independent mechanisms.

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2/AB/57 (Item 1 from file: 315)

DIALOG(R)File 315:ChemEng & Biotec Abs

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450340 CEABA Accession No.: 29-12-022515 DOCUMENT TYPE: Patent

Title: Recombinant conglutinin and process for producing the same.

AUTHOR: **Wakamiya, Nobutaka**

CORPORATE SOURCE: Fuso Pharm. Ind. Ltd. Osaka 541 Japan

CODEN: EPXXDW

PATENT NUMBER: EP 856580

PUBLICATION DATE: 5 Aug 1998 (980805) LANGUAGE: English

PRIORITY PATENT APPLICATION(S) & DATE(S): JP 20969895 (950817)

ABSTRACT: A recombinant conglutinin is disclosed which contains a collagen region consisting of 6 amino acids containing 2 amino acid sequences Gly-Xaa-Xaa, in which Xaa stands for a protein-constituting amino acid, the neck region of natural conglutinin, and the sugar chain-recognition region of natural conglutinin. It has an antiviral activity (virus-neutralizing activity). Also disclosed is a process for detecting the anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP, and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having anti-influenza A virus activity are also disclosed.

2/AB/58 (Item 1 from file: 340)

DIALOG(R)File 340:CLAIMS(R)/US Patent

(c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 10417824 IFI Acc No: 2003-0162248 IFI Acc No: 2003-0047678

Document Type: C

RECOMBINANT HUMAN MANNAN-BINDING PROTEINS AND PRODUCING METHOD OF THE SAME

Inventors: **Wakamiya Nobutaka** (JP)

Assignee: Fuso Pharmaceutical Industries Ltd JP

Assignee Code: 23266

Publication (No,Date), Applic (No,Date):

US 20030162248 20030828 US 200354536 20030106

Publication Kind: A1

Division Pub(No),Applic(No,Date):

US 2000600950

20000908

Priority Applic(No,Date): JP 9811864 19980123

Abstract: Recombinant Human Mannan-Binding Proteins (rhMBP) having physiological activities which are substantially identical to those offered by Human Mannan-Binding Proteins (hMBP), as well as, in particular, a production system for homogenously producing rhMBP having the specific peaks at the molecular weight of 1,000\*1,300 kDa determined by absorbance (280 nm) in Gel-Filtration Chromatography are provided.

2/AB/59 (Item 2 from file: 340)  
DIALOG(R)File 340:CLAIMS(R)/US Patent  
(c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 10413959 IFI Acc No: 2003-0158382 IFI Acc No: 2003-0046835  
Document Type: C  
NOVEL COLLECTINS  
Inventors: Keshi Hiroyuki (JP); Kishi Yuichiro (JP); Ohtani Katsuki (JP);  
Sakamoto Takashi (JP); **Wakamiya Nobutaka** (JP)  
Assignee: Unassigned Or Assigned To Individual  
Assignee Code: 68000  
Publication (No,Date), Applic (No,Date):  
US 20030158382 20030821 US 2003258105 20030319  
Publication Kind: A1  
PCT Pub(No,Date),Applic(No,Date): WO 01JP3468  
20010423  
Section 371: 20030319  
Section 102(e):20030319  
Priority Applic(No,Date): JP 2000120358 20000421

Abstract: Provided are isolated collectin (CL-L2s) genes including a base sequence set out in SEQ ID NO: 1, 3, 5, 7, 9, 12, 36, 38 or 40 relating to a novel collectin which are expected to exhibit an antibacterial activity, an antiviral activity and the like particularly in a human body; and isolated collectin proteins including an amino acid sequence set out in SEQ ID NO: 2, 4, 6, 8, 10, 13, 37, 39 or 41 and derivatives and fragments thereof.

2/AB/60 (Item 3 from file: 340)  
DIALOG(R)File 340:CLAIMS(R)/US Patent  
(c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 10364487 IFI Acc No: 2003-0108904 IFI Acc No: 2003-0030940  
Document Type: C  
NOVEL SCAVENGER RECEPTORS  
Inventors: **Wakamiya Nobutaka** (JP)  
Assignee: Unassigned Or Assigned To Individual  
Assignee Code: 68000  
Publication (No,Date), Applic (No,Date):  
US 20030108904 20030612 US 2002203860 20020930  
Publication Kind: A1  
PCT Pub(No,Date),Applic(No,Date): WO 01JP874  
20010208  
Section 371: 20020930  
Section 102(e):20020930  
Priority Applic(No,Date): JP 200035155 20000214; JP 2000309068 20001010

Abstract: Novel scavenger receptors having an SR structure and a collectinlike structure are provided, which can be utilized in the elucidation of mechanisms of macrophage and basic immunity; in the elucidation of mechanisms of the development of a wide variety of diseases

such as arteriosclerosis, diabetic complications and Alzheimer's disease, hyper beta lipoproteinemia, hypercholesterolemia, hypertriglyceridemia, hypo alpha -lipoproteinemia, transplantation, atherectomy, post angiogenic restenosis, bacterial infections; in the diagnostic, prophylactic and therapeutic methods thereof; and in the development of reagents and drugs for the same. The novel scavenger receptors include proteins comprising an amino acid sequence set out in SEQ ID NO: 2, 4 or 24 or proteins having equivalent properties to the same, or derivatives or fragments thereof as well as isolated polynucleotides comprising a nucleotide sequence encoding these proteins, and related molecules such as antibodies, antagonists and the like. Also disclosed are methods for the treatment using the same.

2/AB/61 (Item 4 from file: 340)  
 DIALOG(R)File 340:CLAIMS(R)/US Patent  
 (c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 10224920 IFI Acc No: 2002-0168627 IFI Acc No: 2002-0043819  
 Document Type: C  
 RECOMBINANT CONGLUTININ AND PRODUCING METHOD THEREOF; POLYPEPTIDE FOR USE  
 IN THE TREATMENT AND PREVENTION OF VIRAL DISEASES  
 Inventors: **Wakamiya Nobutaka** (JP)  
 Assignee: Fuso Pharmaceutical Industries Ltd JP  
 Assignee Code: 23266  
 Publication (No,Date), Applic (No,Date):  
 US 20020168627 20021114 US 20017408 20011108  
 Publication Kind: A1  
 Division Pub(No),Applic(No,Date): GRANTED US 9829156  
 19980803  
 Section 371 Pub(No,Date),Applic(No,Date):US 9829156 19980803;WO  
 95JP2035 19951002  
 Priority Applic(No,Date): JP 95209698 19950817

Abstract: A recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a protein-constituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs; and a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virusinfected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virusinfected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

2/AB/62 (Item 5 from file: 340)  
 DIALOG(R)File 340:CLAIMS(R)/US Patent  
 (c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 3658042 IFI Acc No: 0208776  
 Document Type: C  
 METHODS FOR DETECTING ANTI-VIRAL ACTIVITY OF CALCIUM-DEPENDENT LECTINS;  
 CULTURING CELLS WITH VIRUS TO INFECT CELLS, INCUBATING INFECTED CELLS IN  
 PRESENCE OR ABSENCE OF SPECIFIC CALCIUM-DEPENDENT LECTIN, COMPARING GROSS  
 AREA OF VIRUS INFECTED FOCUS FORMED, AND EVALUATING INHIBITION  
 Inventors: **Wakamiya Nobutaka** (JP)  
 Assignee: Fuso Pharmaceutical Industries Ltd JP  
 Assignee Code: 23266  
 Publication (No,Date), Applic (No,Date):  
 US 6365342 20020402 US 9829156 19980803  
 Publication Kind: B

Calculated Expiration: 20160125

PCT Pub(No,Date),Applic(No,Date): WO 977210  
19960125

19970227 WO 96JP173

Section 371: 19980803

Section 102(e):19980803

Priority Applic(No,Date): JP 95209698 19950817

Abstract: A recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a proteinconstituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs; and a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

2/AB/63 (Item 6 from file: 340)

DIALOG(R)File 340:CLAIMS(R)/US Patent

(c) 2004 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 3376580 IFI Acc No: 0027657

Document Type: C

RECOMBINANT CONGLUTININ AND PRODUCING METHOD THEREOF; ANIMAL LECTIN HAVING A COLLAGEN REGION HAVING TWO UNITS OF AMINO ACID SEQUENCE OF GLYCINE-ANY AMINO ACID-ANY AMINO ACID, A NECK REGION AND A CARBOHYDRATE RECOGNITION REGION OF THE NATIVE PROTEIN

Inventors: **Wakamiya Nobutaka** (JP)

Assignee: Fuso Pharmaceutical Industries Ltd JP

Assignee Code: 23266

Publication (No,Date), Applic (No,Date):

US 6110708 20000829 US 9811735 19980522

Publication Kind: A

Calculated Expiration: 20151002

PCT Pub(No,Date),Applic(No,Date): WO 977133

19970227 WO 95JP2035

19951002

Section 371: 19980522

Section 102(e):19980522

Priority Applic(No,Date): JP 95209698 19950817

Abstract: A recombinant conglutinin containing a collagen region comprising six amino acid residues containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID) NO:3, Xaa representing a proteinconstituting amino acid residue), a neck region of natural conglutinin and a sugar-chain recognition region of natural conglutinin, having an antiviral activity (neutralizing activity) , and being expected to be applicable for medicinal uses.

2/AB/64 (Item 1 from file: 345)

DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat

(c) 2004 EPO. All rts. reserv.

19585405

Basic Patent (No,Kind,Date): WO 200402511 A1 20040108 <No. of Patents:  
001>

ANTI-HIV AGENT AGENT ANTI-HIV (English)

Patent Assignee: FUSO PHARMACEUTICAL IND (JP); WAKAMIYA NOBUTAKA (JP);

OHTANI KATSUKI (JP); SAKAMOTO TAKASHI (JP); KESHI HIROYUKI (JP); KISHI

YUICHIRO (JP)

Author (Inventor): WAKAMIYA NOBUTAKA (JP); OHTANI KATSUKI (JP); SAKAMOTO TAKASHI (JP); KESHI HIROYUKI (JP); KISHI YUICHIRO (JP)  
 Designated States : (National) AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW (Regional) GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

Filing Details: WO 100000 With international search report

IPC: \*A61K-038/16; A61P-031/18; A61P-037/04; A61P-043/00

Derwent WPI Acc No: C 04-082879

Language of Document: Japanese

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
WO 200402511	A1	20040108	WO 2003JP8259	A	20030630 (BASIC)

Priority Data (No,Kind,Date):

JP 2002189534 A 20020628

2/AB/65 (Item 2 from file: 345)

DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat

(c) 2004 EPO. All rts. reserv.

17331774

Basic Patent (No,Kind,Date): WO 200181401 A1 20011101 <No. of Patents: 005>

NOVEL COLLECTINS (English)

Patent Assignee: FUSO PHARMACEUTICAL IND (JP); WAKAMIYA NOBUTAKA (JP); KESHI HIROYUKI (JP); OHTANI KATSUKI (JP); SAKAMOTO TAKASHI (JP); KISHI YUICHIRO (JP)

Author (Inventor): WAKAMIYA NOBUTAKA (JP); KESHI HIROYUKI (JP); OHTANI KATSUKI (JP); SAKAMOTO TAKASHI (JP); KISHI YUICHIRO (JP)

Designated States : (National) AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW (Regional) GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

Filing Details: WO 100000 With international search report

IPC: \*C07K-014/47; C12N-015/12; C12P-021/02; A01K-067/027; C07K-016/18;

G01N-033/53

CA Abstract No: \*135(25)353796G; 135(25)353796G

Derwent WPI Acc No: \*C 02-055345; C 02-055345

Language of Document: Japanese

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
AU 200148840	A5	20011107	AU 200148840	A	20010423
CA 2406884	AA	20021018	CA 2406884	A	20010423
EP 1283214	A1	20030212	EP 2001922014	A	20010423
US 20030158382	AA	20030821	US 258105	A	20030319
WO 200181401	A1	20011101	WO 2001JP3468	A	20010423 (BASIC)

Priority Data (No,Kind,Date):

JP 2000120358 A 20000421

WO 2001JP3468 W 20010423

2/AB/66 (Item 3 from file: 345)  
 DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
 (c) 2004 EPO. All rts. reserv.

17116238

Basic Patent (No,Kind,Date): CA 2399865 AA 20010816 <No. of Patents: 005>

NOVEL SCAVENGER RECEPTORS (English; French)

Patent Assignee: FUSO PHARMACEUTICAL IND (JP)

Author (Inventor): WAKAMIYA NOBUTAKA (JP)

IPC: \*C12N-015/12; A61K-045/00; C12P-021/02; A01K-067/027; A61P-003/06;  
 C12P-021/08; C12N-005/10; A61P-003/10; A61P-009/10; C12N-001/21;  
 C07K-016/28; C07K-014/47

Derwent WPI Acc No: \*C 01-497076;

Language of Document: English

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date	
AU 200130594	A5	20010820	AU 200130594	A	20010208	
CA 2399865	AA	20010816	CA 2399865	A	20010208	(BASIC)
EP 1262546	A1	20021204	EP 2001902805	A	20010208	
US 20030108904	AA	20030612	US 203860	A	20020930	
WO 200159107	A1	20010816	WO 2001JP874	A	20010208	

Priority Data (No,Kind,Date):

JP 200035155 A 20000214  
 JP 2000309068 A 20001010  
 WO 2001JP874 W 20010208

2/AB/67 (Item 4 from file: 345)  
 DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
 (c) 2004 EPO. All rts. reserv.

15790407

Basic Patent (No,Kind,Date): CA 2340934 AA 20000302 <No. of Patents: 007>

NOVEL COLLECTIN (English; French)

Patent Assignee: FUSO PHARMACEUTICAL IND (JP)

Author (Inventor): WAKAMIYA NOBUTAKA (JP)

IPC: \*C12N-015/12; C12P-021/02; A01K-067/027; C12P-021/08; C12N-005/10;  
 C07K-016/18; C07K-014/435; G01N-033/53

CA Abstract No: \*132(16)204040S;

Derwent WPI Acc No: \*C 00-224696;

Language of Document: English

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date	
AU 9953056	A1	20000314	AU 9953056	A	19990824	
AU 751173	B2	20020808	AU 9953056	A	19990824	
CA 2340934	AA	20000302	CA 2340934	A	19990824	(BASIC)
CN 1320164	T	20011031	CN 99811366	A	19990824	
EP 1108786	A1	20010620	EP 99938607	A	19990824	
EP 1108786	A4	20030806	EP 99938607	A	19990824	
WO 200011161	A1	20000302	WO 99JP4552	A	19990824	

Priority Data (No,Kind,Date):

JP 98237611 A 19980824  
 WO 99JP4552 W 19990824

2/AB/68 (Item 5 from file: 345)  
 DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
 (c) 2004 EPO. All rts. reserv.

15211221

Basic Patent (No,Kind,Date): CA 2318851 AA 19990729 <No. of Patents: 004>

RECOMBINANT HUMAN MANNAN-BINDING PROTEINS AND PROCESS FOR PRODUCING THE  
 SAME PROTEINES FIXATRICES DE MANNANE HUMAINES RECOMBINANTES ET LEUR

PROCEDE DE PRODUCTION (English; French)  
 Patent Assignee: FUSO PHARMACEUTICAL IND (JP)  
 Author (Inventor): WAKAMIYA NOBUTAKA (JP)  
 IPC: \*C12N-015/12; A61K-039/00; C12P-021/02; C07K-014/47; C12N-015/63  
 Language of Document: English  
 Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
CA 2318851	AA	19990729	CA 2318851	A	19980723 (BASIC)
JP 11206378	A2	19990803	JP 9811864	A	19980123
US 20030162248	AA	20030828	US 54536	A	20030106
WO 9937676	A1	19990729	WO 98JP3311	A	19980723

Priority Data (No,Kind,Date):

JP 9811864 A 19980123  
 WO 98JP3311 W 19980723  
 US 54536 A 20030106  
 US 600950 B3 20000908

2/AB/69 (Item 6 from file: 345)  
 DIALOG(R) File 345:Inpadoc/Fam.& Legal Stat  
 (c) 2004 EPO. All rts. reserv.

15211210

Basic Patent (No,Kind,Date): CA 2319084 AA 19990729 <No. of Patents: 003>

NOVEL COLLECTIN NOUVELLE COLLECTINE (English; French)  
 Patent Assignee: FUSO PHARMACEUTICAL IND (JP)  
 Author (Inventor): WAKAMIYA NOBUTAKA (JP)  
 IPC: \*C12N-015/12; A01N-063/00; C07K-014/47  
 Language of Document: English  
 Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
CA 2319084	AA	19990729	CA 2319084	A	19980724 (BASIC)
JP 11206377	A2	19990803	JP 9811281	A	19980123
WO 9937767	A1	19990729	WO 98JP3328	A	19980724

Priority Data (No,Kind,Date):

JP 9811281 A 19980123  
 WO 98JP3328 W 19980724

2/AB/70 (Item 7 from file: 345)  
 DIALOG(R) File 345:Inpadoc/Fam.& Legal Stat  
 (c) 2004 EPO. All rts. reserv.

13528832

Basic Patent (No,Kind,Date): CA 2229739 AA 19970227 <No. of Patents: 018>

RECOMBINANT CONGLUTININ AND PRODUCING METHOD THEREOF CONGLUTININE  
 RECOMBINEE ET SON MODE D'OBTENTION (English; French)  
 Patent Assignee: FUSO PHARMACEUTICAL IND (JP)  
 Author (Inventor): WAKAMIYA NOBUTAKA (JP)  
 IPC: \*C07K-014/47;  
 Language of Document: English  
 Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
AU 9536188	A1	19970312	AU 9536188	A	19951002
AU 9645470	A1	19970312	AU 9645470	A	19960125
AU 698112	B2	19981022	AU 9536188	A	19951002
AU 717207	B2	20000323	AU 9645470	A	19960125
CA 2229739	AA	19970227	CA 2229739	A	19951002 (BASIC)
CA 2229775	AA	19970227	CA 2229775	A	19960125
CA 2400143	AA	19970227	CA 2400143	A	19960125
CA 2229739	C	20030114	CA 2229739	A	19951002
CA 2229775	C	20030722	CA 2229775	A	19960125
EP 846701	A1	19980610	EP 95933617	A	19951002

EP 856580	A1	19980805	EP 96901484	A	19960125
EP 846701	A4	20010207	EP 95933617	A	19951002
EP 856580	A4	20010207	EP 96901484	A	19960125
US 6110708	A	20000829	US 11735	A	19980522
US 20020168627	AA	20021114	US 7408	A	20011108
US 6365342	BA	20020402	US 29156	A	19980803
WO 9707133	A1	19970227	WO 95JP2035	A	19951002
WO 9707210	A1	19970227	WO 96JP173	A	19960125

## Priority Data (No,Kind,Date):

JP 95209698 A 19950817  
 WO 95JP2035 W 19951002  
 WO 95JP2035 A 19951002  
 WO 96JP173 W 19960125  
 US 7408 A 20011108  
 US 29156 A3 19980803

2/AB/71 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

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06264796

## RECOMBINANT HUMAN MANNAN BINDING PROTEIN AND ITS PRODUCTION

PUB. NO.: 11-206378 [JP 11206378 A]  
 PUBLISHED: August 03, 1999 (19990803)  
 INVENTOR(s): **WAKAMIYA NOBUTAKA**  
 APPLICANT(s): FUSO PHARMACEUTICAL INDUSTRIES LTD  
 APPL. NO.: 10-011864 [JP 9811864]  
 FILED: January 23, 1998 (19980123)

## ABSTRACT

PROBLEM TO BE SOLVED: To provide a system for homogeneously producing a recombinant human mannan binding protein (rhMBP) having the same physiological activity as that of human mannan binding protein (hMBP).

SOLUTION: A portion of 66 bp to 812 bp in the cDNA of a native human mannan binding protein (native hMBP) is sectioned and then inserted into an expression vector pNOW1 to construct an expression vector pNOW1-hMBP, which, in turn, is transferred into dihydrofolic acid reductase-deficient (dhfr-) Chinese hamster ovarian(CHO) cells to afford the corresponding transformant, which is then cultured in a neomycin-contg. medium to produce neomycin-resistant cells, which, in turn, is cultured in a medium containing methotrexate(MTX) to afford MTX-resistant cells, from which the aimed rhMBP is recovered, being such that the absorbance at 280 nm when treated with gel filtration chromatography represents a specified peak with a molecular weight of 1,000-1,300 kDa.

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2/AB/72 (Item 2 from file: 347)

DIALOG(R)File 347:JAPIO

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06264795

## NEW COLLECTIN

PUB. NO.: 11-206377 [JP 11206377 A]  
 PUBLISHED: August 03, 1999 (19990803)  
 INVENTOR(s): **WAKAMIYA NOBUTAKA**  
 APPLICANT(s): FUSO PHARMACEUTICAL INDUSTRIES LTD

APPL. NO.: 10-011281 [JP 9811281]  
FILED: January 23, 1998 (19980123)

ABSTRACT

PROBLEM TO BE SOLVED: To obtain a polynucleotide encoding a new collectin which exhibits antibacterial, antiviral activity or the like in vivo in humans and is useful as a physiologically active medicinal substance.

SOLUTION: This polynucleotide contains a base sequence encoding a protein constituted of an amino acid sequence of the formula. This polynucleotide is obtained by the following procedure: regions with higher preservability among known collections are retrieved, an EST database is retrieved to afford data (registry number: R 29493) containing unknown base sequences; from a clone as the base of the above data, a probe for screening use is prepared; a human liver-derived cDNA library subjected to titration is screened with the probe, a positive clone is subjected to secondary screening in a similar way, the base sequence of the whole region of the plasmid of a transformant afforded by transformation with a DNA fragment based on the resulting positive clone is determined, thus obtaining the aimed cDNA clone encoding the amino acid sequence of the formula.

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2/AB/73 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01705474

ANTI-HIV AGENT

AGENT ANTI-HIV

PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209242), 7-10, Doshomachi 1-chome,  
Chuo-ku, Osaka-shi, Osaka 541-0045, (JP), (Applicant designated States:  
all)

INVENTOR:

WAKAMIYA, Nobutaka, 1-4, Toko-Gojo 10-chome, Asahikawa-shi,

Hokkaido 078-8345, (JP)

OHTANI, Katsuki, SK Haitu B, 2-8, Kamui-Nijo 8-chome, Asahikawa-shi,

Hokkaido 070-8012, (JP)

SAKAMOTO, Takashi, 1138, Shiba, Sakurai-shi, Nara 633-0074, (JP)

KESHI, Hiroyuki, 4-14-601, Tonotsuji 1-chome, Sumiyoshi-ku, Osaka-shi,

Osaka 558-0042, (JP)

KISHI, Yuichiro, 5-53-4, Fukiya-cho, Wakayama-shi, Wakayama 640-8324, (JP)

PATENT (CC, No, Kind, Date):

WO 2004002511 040108

APPLICATION (CC, No, Date): EP 2003738567 030630; WO 2003JP8259 030630

PRIORITY (CC, No, Date): JP 2002189534 020628

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;

HU; IE; IT; LI; LU; MC; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: A61K-038/16; A61P-031/18; A61P-037/04;

A61P-043/00

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

2/AB/74 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01372888

NOVEL COLLECTINS

NEUE COLLECTINE  
NOUVELLES COLLECTINES  
PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209242), 7-10, Doshomachi 1-chome,  
Chuo-ku, Osaka-shi, Osaka 541-0045, (JP), (Applicant designated States:  
all)

INVENTOR:

**WAKAMIYA, Nobutaka**, 1-4, Toko-Gojo 10-chome, Asahikawa-shi,  
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KESHI, Hiroyuki, 2-25, Tonotsuji 1-chome Sumiyoshi-ku, Osaka-shi Osaka  
558-0042, (JP)

OHTANI, Katsuki, SK Hights B, 2-8 Kamui-Nijo 8-chome, Asahikawa-shi  
Hokkaido 070-8012, (JP)

SAKAMOTO, Takashi, 1138, Shiba, Sakurai-shi, Nara 633-0074, (JP)

KISHI, Yuichiro, 5-53-4, Fukiya-cho, Wakayama-shi, Wakayama 640-8324, (JP)

LEGAL REPRESENTATIVE:

Webber, Philip Michael et al (83441), Frank B. Dehn & Co., 179 Queen  
Victoria Street, London EC4V 4EL, (GB)

PATENT (CC, No, Kind, Date): EP 1283214 A1 030212 (Basic)

WO 2001081401 011101

APPLICATION (CC, No, Date): EP 2001922014 010423; WO 2001JP3468 010423

PRIORITY (CC, No, Date): JP 2000120358 000421

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C07K-014/47; C12N-015/12; C12P-021/02;  
A01K-067/027; C07K-016/18; G01N-033/53

ABSTRACT EP 1283214 A1

Provided are isolated collectin (CL-L2s) genes including a base  
sequence set out in SEQ ID NO: 1, 3, 5, 7, 9, 12, 36, 38 or 40 relating  
to a novel collectin which are expected to exhibit an antibacterial  
activity, an antiviral activity and the like particularly in a human  
body; and isolated collectin proteins including an amino acid sequence  
set out in SEQ ID NO: 2, 4, 6, 8, 10, 13, 37, 39 or 41 and derivatives  
and fragments thereof.

ABSTRACT WORD COUNT: 81

NOTE:

Figure number on first page: 0004

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200307	2603
SPEC A	(English)	200307	20282
Total word count - document A			22885
Total word count - document B			0
Total word count - documents A + B			22885

2/AB/75 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01338723

NOVEL SCAVENGER RECEPTORS

FANGER-REZEPTOREN

NOUVEAUX RECEPTEURS DESTRUCTEURS

PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209242), 7-10, Doshomachi 1-chome,  
Chuo-ku, Osaka-shi, Osaka 541-0045, (JP), (Applicant designated States:  
all)

INVENTOR:

**WAKAMIYA, Nobutaka**, 1-40, Toko-Gojo 10 -chome, Asahikawa-shi,  
Hokkaido 078-8345, (JP)

LEGAL REPRESENTATIVE:

Webber, Philip Michael (83441), Frank B. Dehn & Co., 179 Queen Victoria  
Street, London EC4V 4EL, (GB)

PATENT (CC, No, Kind, Date): EP 1262546 A1 021204 (Basic)

WO 2001059107 010816

APPLICATION (CC, No, Date): EP 2001902805 010208; WO 2001JP874 010208

PRIORITY (CC, No, Date): JP 200035155 000214; JP 2000309068 001010

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C12N-015/12; C07K-014/47; C12N-001/21;

C12N-005/10; C12P-021/02; C07K-016/28; C12P-021/08; A01K-067/027;

A61K-045/00; A61P-009/10; A61P-003/06; A61P-003/10

ABSTRACT EP 1262546 A1

Novel scavenger receptors having an SR structure and a collectin-like structure are provided, which can be utilized in the elucidation of mechanisms of macrophage and basic immunity; in the elucidation of mechanisms of the development of a wide variety of diseases such as arteriosclerosis, diabetic complications and Alzheimer's disease, hyper (beta)-lipoproteinemia, hypercholesterolemia, hypertriglyceridemia, hypo (alpha)-lipoproteinemia, transplantation, atherectomy, post angiogenic restenosis, bacterial infections; in the diagnostic, prophylactic and therapeutic methods thereof; and in the development of reagents and drugs for the same. The novel scavenger receptors include proteins comprising an amino acid sequence set out in SEQ ID NO: 2, 4 or 24 or proteins having equivalent properties to the same, or derivatives or fragments thereof as well as isolated polynucleotides comprising a nucleotide sequence encoding these proteins, and related molecules such as antibodies, antagonists and the like. Also disclosed are methods for the treatment using the same.

ABSTRACT WORD COUNT: 148

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200249	1250
SPEC A	(English)	200249	19757
Total word count - document A			21007
Total word count - document B			0
Total word count - documents A + B			21007

2/AB/76 (Item 4 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01141828

NOVEL COLLECTIN

NEUARTIGES COLLECTIN

NOUVELLE COLLECTINE

PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209242), 7-10, Doshomachi 1-chome,  
Chuo-ku, Osaka-shi, Osaka 541-0045, (JP), (Applicant designated States:  
all)

INVENTOR:

**WAKAMIYA, Nobutaka**, 9-20, Oike 1-Chome, Ibaraki-shi, Osaka  
567-0826, (JP)

LEGAL REPRESENTATIVE:

Gardner, Rebecca (90041), Frank B. Dehn & Co. 179 Queen Victoria Street,  
London EC4V 4EL, (GB)

PATENT (CC, No, Kind, Date): EP 1108786 A1 010620 (Basic)  
 WO 200011161 000302  
 APPLICATION (CC, No, Date): EP 99938607 990824; WO 99JP4552 990824  
 PRIORITY (CC, No, Date): JP 98237611 980824  
 DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
 LU; MC; NL; PT; SE  
 EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
 INTERNATIONAL PATENT CLASS: C12N-015/12

ABSTRACT EP 1108786 A1

Novel collectin related molecules i.e., a novel collectin gene comprising a nucleotide sequence set out in SEQ ID NO: 1, and a novel collectin comprising an amino acid sequence set out in SEQ ID NO: 2, which are expected to exhibit anti-bacterial, anti-viral activity or the like especially in human body, and methods in which these molecules are used are provided.

ABSTRACT WORD COUNT: 62

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200125	889
SPEC A	(English)	200125	18250
Total word count - document A			19139
Total word count - document B			0
Total word count - documents A + B			19139

2/AB/77 (Item 5 from file: 348)  
 DIALOG(R)File 348:EUROPEAN PATENTS  
 (c) 2004 European Patent Office. All rts. reserv.

00841821

RECOMBINANT CONGLUTININ AND PROCESS FOR PRODUCING THE SAME  
 REKOMBINANTES CONGLUTININ UND VERFAHREN ZU DESSEN HERSTELLUNG  
 CONGLUTININE RECOMBINEE ET SON PROCEDE DE PRODUCTION  
 PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209241), 7-10, Doshomachi 1-chome,  
 Chuo-ku, Osaka-shi, Osaka 541, (JP), (applicant designated states:  
 AT;BE;CH;DE;DK;FR;GB;IT;LI;NL;SE)

INVENTOR:

**WAKAMIYA, Nobutaka**, 9-20, Oike 1 chome, Ibaraki-shi, Osaka 567, (JP)

LEGAL REPRESENTATIVE:

Towler, Philip Dean (75321), Frank B. Dehn & Co., European Patent  
 Attorneys, 179 Queen Victoria Street, London EC4V 4EL, (GB)

PATENT (CC, No, Kind, Date): EP 856580 A1 980805 (Basic)  
 WO 9707210 970227  
 APPLICATION (CC, No, Date): EP 96901484 960125; WO 96JP173 960125  
 PRIORITY (CC, No, Date): JP 95209698 950817; PC JP 951002  
 DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE  
 INTERNATIONAL PATENT CLASS: C12N-015/12; C12N-015/67; C12P-021/02;  
 C12Q-001/70; C07K-014/47; C07K-014/435; C12N-001/21; C12P-021/02;  
 C12R-001/19; C12N-001/21; C12R-001/19

ABSTRACT EP 856580 A1

A recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a protein-constituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs; and a process for

detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

ABSTRACT WORD COUNT: 125

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9832	291
SPEC A	(English)	9832	4273
Total word count - document A			4564
Total word count - document B			0
Total word count - documents A + B			4564

2/AB/78 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00841161

RECOMBINANT CONGLUTININ AND PROCESS FOR PRODUCING THE SAME  
REKOMBINANTES CONGLUTININ UND PROZESS FUR SEINE PRODUKTION  
CONGLUTININE DE RECOMBINAISON ET PROCEDE POUR PRODUIRE CETTE SUBSTANCE  
PATENT ASSIGNEE:

FUSO PHARMACEUTICAL INDUSTRIES LTD., (1209241), 7-10, Doshomachi 1-chome,  
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INVENTOR:

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PATENT (CC, No, Kind, Date): EP 846701 A1 980610 (Basic)  
WO 9707133 970227

APPLICATION (CC, No, Date): EP 95933617 951002; WO 95JP2035 951002

PRIORITY (CC, No, Date): JP 95209698 950817

DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: C07K-014/47; C12P-021/02; C12N-015/12;

ABSTRACT EP 846701 A1

A recombinant conglutinin containing a collagen region comprising six amino acid residues containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, Xaa representing a protein-constituting amino acid residue), a neck region of natural conglutinin and a sugar-chain recognition region of natural conglutinin, having an antiviral activity (neutralizing activity), and being expected to be applicable for medicinal uses.

ABSTRACT WORD COUNT: 58

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9824	177
SPEC A	(English)	9824	3517
Total word count - document A			3694
Total word count - document B			0
Total word count - documents A + B			3694

2/AB/79 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01081337

ANTI-HIV AGENT

AGENT ANTI-HIV

Patent Applicant/Assignee:

FUSO PHARMACEUTICAL INDUSTRIES LTD, 7-10, Dosho-machi 1-chome, Chuo-ku, Osaka-shi, Osaka 541-0045, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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OHTANI Katsuki, SK Haitzu B, 2-8, Kamui-Nijo 8-chome, Asahikawa-shi, Hokkaido 070-8012, JP, JP (Residence), JP (Nationality), (Designated only for: US)

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Legal Representative:

SUMIDA Yoshihiro (et al) (agent), Arco Patent Office, 3rd Fl., Bo-eki Bldg., 123-1, Higashi-machi, Chuo-ku, Kobe-shi, Hyogo 650-0031, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200402511 A1 20040108 (WO 0402511)

Application: WO 2003JP8259 20030630 (PCT/WO JP2003008259)

Priority Application: JP 2002189534 20020628

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: Japanese

Filing Language: Japanese

English Abstract

It is intended to disclose an anti-HIV agent which contains as the active ingredient a mannose-binding protein (MBP) and efficaciously contributes to the treatment of patients infected with human immunodeficiency virus (HIV) and inhibits the progress of the disease. It is also intended to disclose a method of evaluating an anti-HIV activity exerted by the MBP which involves the step of culturing HIV-infected cells in the presence of the MBP.

French Abstract

Cette invention concerne un agent anti-HIV qui contient comme principe actif une proteine de fixation du mannose (MBP) et qui contribue efficacement au traitement de patients infectes par le virus de l'immunodeficiance humaine (HIV) et inhibe la progression de la maladie. Cette invention concerne egalement un procede servant a evaluer l'activite anti-HIV de la proteine MBP, ce procede consistant a cultiver des cellules infectees par le virus HIV en presence de la proteine MBP.

DIALOG(R)File 349:PCT FULLTEXT

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00848019

NOVEL COLLECTINS

NOUVELLES COLLECTINES

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

WAKAMIYA Nobutaka, 1-4, Toko-Gojo 10-chome, Asahikawa-shi, Hokkaido 078-8345, JP, JP (Residence), JP (Nationality), (Designated only for: US)

KESHI Hiroyuki, 2-25, Tonotsuji 1-chome, Sumiyoshi-ku, Osaka-shi, Osaka 558-0042, JP, JP (Residence), JP (Nationality), (Designated only for: US)

OHTANI Katsuki, SK Hights B, 2-8, Kamui-Nijo 8-chome, Asahikawa-shi, Hokkaido 070-8012, JP, JP (Residence), JP (Nationality), (Designated only for: US)

SAKAMOTO Takashi, 1138, Shiba, Sakurai-shi, Nara 633-0074, JP, JP (Residence), JP (Nationality), (Designated only for: US)

KISHI Yuichiro, 5-53-4, Fukiya-cho, Wakayama-shi, Wakayama 640-8324, JP, JP (Residence), JP (Nationality), (Designated only for: US)

Legal Representative:

SUMIDA Yoshihiro (et al) (agent), Arco Patent Office, 3rd Fl., Bo-eki Bldg., 123-1, Higashi-machi, Chuo-ku, Kobe-shi, Hyogo 650-0031, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200181401 A1 20011101 (WO 0181401)

Application: WO 2001JP3468 20010423 (PCT/WO JP0103468)

Priority Application: JP 2000120358 20000421

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: Japanese

Filing Language: Japanese

English Abstract

Isolated collectin (CL-L2s) genes containing a base sequence represented by SEQ ID NO:1, 3, 5, 7, 9, 12, 36, 38 or 40 relating to novel collectins which are expected as exhibiting an antibacterial activity, an antiviral activity, etc. particularly in the human body; and isolated collectin proteins containing an amino acid sequence represented by SEQ ID NO:2, 4, 6, 8, 10, 13, 37, 39 or 41 and derivatives and fragments thereof.

French Abstract

L'invention concerne des genes de collectine (CL-L2S) isolees contenant une sequence de base representee par SEQ ID NO:1, 3, 5, 7, 9, 12, 36, 38 ou 40 qui concernent des nouvelles collectines exerçant une activite antibacterienne et antivirale, etc., en particulier, chez l'homme. L'invention concerne egalement des proteines collectines isolees contenant une sequence d'acide amine representee par SEQ ID NO:2, 4, 6, 8, 10, 13, 37, 39, ou 41, et des derives et fragments de celles-ci.

2/AB/81 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00825677

NOVEL SCAVENGER RECEPTORS

NOUVEAUX RECEPTEURS DESTRUCTEURS

Patent Applicant/Assignee:

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Osaka-shi, Osaka 541-0045, JP, JP (Residence), JP (Nationality), (For  
all designated states except: US)

Patent Applicant/Inventor:

WAKAMIYA Nobutaka, 9-20, Oike, 1-chome, Ibaraki-shi, Osaka 567-0826  
, JP, JP (Residence), JP (Nationality), (Designated only for: US

Legal Representative:

SUMIDA Yoshihiro (et al) (agent), Arco Patent Office, 3rd Fl., Bo-eki  
Bldg., 123-1, Higashi-machi, Chuo-ku, Kobe-shi, Hyogo 650-0031, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200159107 A1 20010816 (WO 0159107)

Application: WO 2001JP874 20010208 (PCT/WO JP0100874)

Priority Application: JP 200035155 20000214; JP 2000309068 20001010

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: Japanese

Filing Language: Japanese

#### English Abstract

Novel scavenger receptors having an SR structure and a collectin-like structure which are proteins having the amino acid sequences of SEQ ID NOS:2, 4 and 24 or proteins having comparable properties thereto, which are usable in clarifying the functions of macrophages and basal immunity, in clarifying the onset mechanisms of various diseases such as arteriosclerosis, diabetic complications, re-constriction after angioplasty and bacterial infection, in diagnosing, preventing and treating these diseases and in developing reagents and drugs therefor; and molecules related thereto such as derivatives or fragments thereof, isolated polynucleotides containing base sequences encoding the same, antibodies and antagonists. A treatment method by using these receptors is also disclosed.

#### French Abstract

L'invention concerne de nouveaux recepteurs destructeurs possedant une structure SR et une structure du type collectine, ces structures etant des proteines possedant des sequences d'acide amine (SEQ ID NO: 2, 4, et 24) ou des proteines ayant des proprietes comparables. Ces recepteurs destructeurs sont utilises pour epurer les fonctions de macrophages et d'immunité de base, les mecanismes d'apparition de differentes maladies telles que l'arteriosclerose, les complications diabetiques, la recontriction consecutive a une angioplastie, et les infections bacteriennes; pour diagnostiquer, prevenir, et traiter lesdites maladies, et developper des reactifs et des medicaments a partir de ceux-ci. L'invention concerne egalement des molecules associees audits recepteurs telles que des derives ou des fragments de ceux-ci, des sequences de base contenant des polynucleotides isoles codant lesdits recepteurs, des anticorps et des antagonistes. L'invention concerne enfin une technique de traitement utilisant ces recepteurs.

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00547788

NOVEL COLLECTIN

NOUVELLE COLLECTINE

Patent Applicant/Assignee:

FUSO PHARMACEUTICAL INDUSTRIES LTD,

WAKAMIYA Nobutaka,

Inventor(s):

**WAKAMIYA Nobutaka**

Patent and Priority Information (Country, Number, Date):

Patent: WO 200011161 A1 20000302 (WO 0011161)

Application: WO 99JP4552 19990824 (PCT/WO JP9904552)

Priority Application: JP 98237611 19980824

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK

DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM

TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG

KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF

BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: Japanese

#### English Abstract

Novel collectin-related molecules expected as exerting antibacterial and antiviral activities, etc. particularly in the human body, namely, a novel collectin gene containing the base sequence represented by SEQ ID NO:1 and a novel collectin containing the amino acid sequence represented by SEQ ID NO:2; and a method with the use of the same.

#### French Abstract

L'invention concerne de nouvelles molecules liees a la collectine, exerçant une activite antibacterienne et antivirale, en particulier, chez l'homme. L'invention traite plus particulierement d'un nouveau gene de collectine contenant la sequence de base representee par SEQ ID NO:1 et une nouvelle collectine contenant la sequence d'acides amines representee par SEQ ID NO: 2. L'invention a aussi pour objet un procede mettant en oeuvre ces composes.

2/AB/83 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00506415

NOVEL COLLECTIN

NOUVELLE COLLECTINE

Patent Applicant/Assignee:

FUSO PHARMACEUTICAL INDUSTRIES LTD,

WAKAMIYA Nobutaka,

Inventor(s):

**WAKAMIYA Nobutaka**

Patent and Priority Information (Country, Number, Date):

Patent: WO 9937767 A1 19990729

Application: WO 98JP3328 19980724 (PCT/WO JP9803328)

Priority Application: JP 9811281 19980123

Designated States: CA US

Publication Language: Japanese

#### English Abstract

A gene encoding a novel collectin protein which is expected to exhibit an antibacterial activity, an antiviral activity, etc. particularly in the human body, and its amino acid sequence.

French Abstract

L'invention concerne un gene codant pour une nouvelle proteine collectine presentant une activite antibacterienne, une activite antivirale, etc. en particulier dans le corps humain, ainsi que sa sequence aminoacide.

2/AB/84 (Item 6 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00506324  
RECOMBINANT HUMAN MANNAN-BINDING PROTEINS AND PROCESS FOR PRODUCING THE SAME  
PROTEINES FIXATRICES DE MANNANE HUMAINES RECOMBINANTES ET LEUR PROCEDE DE PRODUCTION

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9937676 A1 19990729

Application: WO 98JP3311 19980723 (PCT/WO JP9803311)

Priority Application: JP 9811864 19980123

Designated States: CA US

Publication Language: Japanese

English Abstract

A production system for homogeneously producing recombinant human mannan-binding proteins (rhMBPs) being comparable in physiological activity to human mannan-binding protein (hMBP), in particular those showing a specific peak at molecular weight of from 1,000 to 1,300 kDa in the absorbance (280 nm) in gel filtration chromatography.

French Abstract

Un systeme de production destine a une production homogene de proteines fixatrices de mannane humaines recombinantes (rhMBP) est comparable, au point de vue activite physiologique, a des proteines fixatrices de mannane humaines (hMBP), en particulier, a celles presentant un pic specifique pour une masse moleculaire comprise entre 1000 et 1300 kDa dans l'absorbance (280 nm) en chromatographie par filtration sur gel.

2/AB/85 (Item 7 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00366883  
RECOMBINANT CONGLUTININ AND PROCESS FOR PRODUCING THE SAME  
CONGLUTININE RECOMBINEE ET SON PROCEDE DE PRODUCTION

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

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Application: WO 96JP173 19960125 (PCT/WO JP9600173)

Priority Application: JP 95209698 19950817; WO 95JP2035 19951002

Designated States: AU CA JP KR US AT BE CH DE DK ES FR GB GR IE IT LU MC NL  
PT SE

Publication Language: Japanese

English Abstract

A recombinant conglutinin which contains a collagen region consisting of six amino acids containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, wherein Xaa stands for a protein-constituting amino acid), the neck region of natural conglutinin and the sugar chain recognition region of natural conglutinin, has an antiviral activity (virus neutralizing activity), and is expected to be applicable to drugs; and a process for detecting anti-influenza A virus activity of a mannose-binding protein (MBP) or a human mannose-binding protein (hMBP) involving the step of treating influenza A virus-infected cells with the MBP or hMBP and measuring the level of the suppression of the budding of the virus in the virus-infected cells. An MBP and an hMBP having an anti-influenza A virus activity are disclosed.

French Abstract

Une conglutinine recombinée, laquelle contient une région de collagène constituée de 6 acides aminés contenant deux séquences d'acides aminés Gly-Xaa-Xaa (SEQ-ID-NO:3, dans laquelle Xaa représente un acide amine constituant une protéine), la région de col de la conglutinine naturelle et la région de reconnaissance de chaîne de sucre de conglutinine naturelle, présente une activité antivirale (activité de neutralisation de virus), et on envisage de l'appliquer à des médicaments. L'invention concerne également un procédé de détection d'une activité anti-virus de la grippe A d'une protéine liant le mannose (MBP) ou bien d'une protéine humaine de mannose (hMBP), mettant en œuvre l'étape de traitement de cellules infectées par le virus de la grippe A avec la MBP ou la hMBP, et de mesure du niveau de la suppression du bourgeonnement du virus dans les cellules contaminées par le virus. Une MBP et une hMBP présentant une activité anti-virus de la grippe A sont décrites.

2/AB/86 (Item 8 from file: 349)  
 DIALOG(R)File 349:PCT FULLTEXT  
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00366806

RECOMBINANT CONGLUTININ AND PROCESS FOR PRODUCING THE SAME  
 CONGLUTININE DE RECOMBINAISON ET PROCEDE POUR PRODUIRE CETTE SUBSTANCE  
 Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 9707133 A1 19970227  
 Application: WO 95JP2035 19951002 (PCT/WO JP9502035)  
 Priority Application: JP 95209698 19950817

Designated States: AU CA KR US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT  
 SE

Publication Language: Japanese

English Abstract

A recombinant conglutinin containing a collagen region comprising six amino acid residues containing two amino acid sequences Gly-Xaa-Xaa (SEQ ID NO:3, Xaa representing a protein-constituting amino acid residue), a neck region of natural conglutinin and a sugar-chain recognition region of natural conglutinin, having an antiviral activity (neutralizing activity), and being expected to be applicable for medicinal uses.

French Abstract

Cette invention se rapporte à une conglutinine de recombinaison contenant une région de collagène comprenant six résidus d'acides aminés

contenant deux sequences d'acides amines Gly-Xaa-Xaa (numero d'identification de sequences: 3, Xaa representant un residu d'acide amine constituant une proteine), une region d'etranglement en conglutinine naturelle et une region de reconnaissance de chaine de sucre en conglutinine naturelle, possedant une action antivirale (action neutralisante), et susceptible de servir dans des utilisations medicinales.

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